

CHAPTER FIVE: MUNICIPAL

5.1 INTRODUCTION

The Municipal Conservation Program for the *Fourth Management Plan for the Pinal Active Management Area* (4MP) is designed to assist the Pinal Active Management Area (PAMA) in moving toward its goal of preserving the agricultural economy for as long as possible while preserving water supplies for future non-irrigation uses by: (1) gradually reducing per capita water consumption; (2) encouraging the use of the best available water conservation practices; and (3) maximizing the efficient use of all water supplies, including the use of reclaimed water. In the 4MP, ADWR is continuing its efforts to address water management challenges and minimize obstacles to further progress towards the achievement of the PAMA goal. The Municipal Conservation Program for the fourth management period continues to encourage the equitable distribution of water in an economically sound manner through long-range planning, cooperative regional efforts, technical assistance, public education and regulatory programs. The efficient use of all sources of water and replacement of PAMA groundwater uses with alternative supplies will help ensure a sustainable and secure water supply for the future.

Municipal provider conservation programs have been implemented by municipal water providers in response to regulatory requirements from previous management plans. A firm commitment to the continued implementation of conservation measures and of additional measures required in the 4MP for the PAMA will result in further reductions in per capita use rates and increased water use efficiency in the municipal sector. Additional efforts to those required in the PAMA 4MP will be necessary to achieve the PAMA water management goal, as well as promote more effective and efficient water management within the PAMA. These additional efforts include, but are not limited to, the following: increased water conservation efforts; full utilization of Central Arizona Project (CAP) allocations; and maximized use of reclaimed water (which may, in part, be accomplished through artificial recharge).

5.1.1 What is a Municipal Water Provider?

The municipal water use sector includes water use by municipal water providers. Municipal water providers are cities, towns, private water companies and irrigation districts that deliver groundwater for non-irrigation uses (such as residential, commercial, governmental, industrial and construction uses). Municipal water providers can also include well co-operatives, mobile home parks, or improvement districts. ADWR regulates those water providers serving more than 250 ac-ft of water for non-irrigation use annually as large municipal providers. Those providers serving 250 ac-ft or less annually are regulated as small municipal providers. Some municipal water providers deliver water that is untreated for landscape/flood irrigation purposes only. The 4MP regulates as a large untreated provider a municipal provider who delivers 100 ac-ft or more of untreated water annually for landscape/flood irrigation. A small municipal provider who delivers less than 100 ac-ft of untreated water per year and only delivers water for landscape/flood irrigation is included in the small municipal water provider category in the PAMA 4MP.

ADWR does not regulate uses of water by small, private, domestic wells, known as exempt wells, under the Groundwater Code (Code). Exempt wells are equipped with pumps that have a capacity of 35 gallons per minute or less. Exempt well uses are not subject to reporting and water conservation requirements. Water demand associated with domestic wells is estimated to have been about 3,720 ac-ft in the PAMA in 2015. This estimate is based on an estimated population relying on exempt wells and Third Management Plan (3MP) models for interior and exterior demand in new single family homes.

5.1.2 Municipal Conservation Programs – History and Background

The initial Third Management Plan (3MP) included the Total Gallons Per Capita per Day (GPCD) Program, the Alternative Conservation Program (ACP), the Institutional Provider Program (IPP), and the Non-Per Capita Conservation Program (NPCCP). The original NPCCP, included in the 3MP, was a Best

Management Practices (BMP) program, intended as an alternative to the Total GPCD and ACP programs.

The Modified Non-Per Capita Conservation Program (MNPCCP) is a BMP program, and was developed as a result of the desire to consider alternatives to the Total GPCD Program that would better meet the needs and capabilities of the regulated municipal water providers as well as those of ADWR. Between 2006 and 2008, ADWR conducted an evaluation of the 3MP regulatory programs for large municipal water providers. The initial phase of the evaluation included an informal information gathering effort to identify concerns and to solicit comments and suggestions from large municipal water providers in each of the state's five Active Management Areas (AMAs) as well as from various staff members at ADWR. The public meeting phase of this stakeholder process began with all large municipal water providers within each of the AMAs being invited to further participate in the process through a series of public meetings (See <http://www.azwater.gov/AzDWR/WaterManagement/AMAs/MunicipalConservationProgram-ThirdManagementPlanReview.htm>). In April 2007, legislation was passed to add a new regulatory program to the 3MP for the AMAs - the MNPCCP. On April 1, 2008, the Director issued orders modifying the 3MP for each AMA to include the MNPCCP consistent with A.R.S. § 45-566.01. The modification became effective on May 20, 2008, and the program is described in the Second Modification to Chapter 5 of the 3MP (See <http://www.azwater.gov/AzDWR/WaterManagement/AMAs/ThirdManagementPlan-SecondModification.htm>). The first year of provider program implementation was 2010.

For the 4MP, A.R.S. § 45-567.01 requires only one non-per capita program – the NPCCP. Throughout this chapter, references to the NPCCP mean the 4MP NPCCP, which corresponds to the MNPCCP in the 3MP. All large municipal providers that have a Designation of Assured Water Supply (DAWS), including municipal providers previously regulated under the original NPCCP, will be regulated under the Total GPCD Program for the 4MP, pursuant to A.R.S. § 45-567(A)(2), unless they notify the Director that they elect to be regulated under the NPCCP and the Director approves their entry into the NPCCP. All large municipal providers that have not obtained a DAWS will be regulated under the NPCCP.

The Total GPCD Program assigns a GPCD target to each large municipal provider based on a statistical analysis of each large municipal provider's GPCD trends. The Total GPCD Program is based on water use characteristics within the water service area and the large municipal provider's water conservation potential.

Large untreated providers are required to meet an ac-ft per acre application rate limitation. Small municipal providers are required to reduce waste and improve water use efficiency within their service areas during the fourth management period.

All municipal water providers have maximum allowable lost and unaccounted for water requirements to minimize system losses. All municipal providers must also comply with monitoring and reporting requirements. Information on water use, growth and system losses must be reported to ADWR annually.

5.2 MUNICIPAL SECTOR CHARACTERISTICS AND ROLES IN PAMA WATER MANAGEMENT GOAL ACHIEVEMENT

5.2.1 PAMA Municipal Sector Description

There are 12 large municipal water providers in the PAMA who use more than 250 ac-ft of water per year. Three of the 12 large providers deliver more than 100 ac-ft of untreated water per year for landscape/flood irrigation and are further classified as large untreated providers. There are 29 small municipal providers that use 250 ac-ft or less water per year. One of the 29 small municipal providers delivers only untreated

water, but delivers less than 100 ac-ft per year of untreated water for landscape/flood irrigation. There are no specific regulations in the 4MP for small municipal providers that deliver only untreated water and that deliver less than 100 ac-ft per year of untreated water.

The municipal sector in the PAMA accounts for about three percent of total PAMA water demand. This sector has grown from 12,984 ac-ft of water used in 1985 to 33,463 ac-ft used in 2015. Population in the PAMA grew by 145,123 people since 1985, an increase of 247 percent. Although direct use of Central Arizona Project (CAP) water began during the second management period, the AMA's large municipal providers are still dependent on mined groundwater. In 1985, small providers delivered almost 14 times the volume of water estimated volume to have been used by exempt wells. In the year 2015, exempt well use was estimated to have been about 3,720 ac-ft while small providers delivered 1,328 ac-ft. The economic downturn may account to some degree for the flattening of municipal demand in general between 2007 and 2015.

5.2.2 Municipal Water Use Profile

Municipal provider GPCD rates in the PAMA have decreased since 2002 (*See Figure 5-1*), which means that less groundwater is now required to serve the same number of people that were served in the past. A firm commitment to the continued implementation of conservation measures and implementation of measures in addition to those required in the 4MP will result in further reductions in per capita use rates and increased water use efficiency in the municipal sector. Additional efforts to those required in the PAMA 4MP will be necessary to achieve the water management goal of the PAMA, as well as promote more effective and efficient water management within the PAMA. These additional efforts include, but are not limited to, the following: increased water conservation efforts; full utilization of CAP allocations; and maximized use of reclaimed water (which may, in part, be accomplished through artificial recharge).

More than half of the 4,100 square miles included in the PAMA is tribal land. The Tohono O'odham, Gila River, and Ak-Chin tribal communities control 2,100 square miles within the PAMA for domestic, commercial, agricultural, and grazing purposes. Only about 23 percent of the land is privately owned and used for domestic, commercial, agricultural and mining purposes. Ownership of the remaining land is divided among State Trust Land, BLM, U.S. Military, Game and Fish, County, and Bureau of Reclamation Lands (*See Figure 5-2*).

Table 5-1 shows the total demand in the municipal sector from 1985 through 2015 and the sources of supply used to meet the demand. Municipal groundwater demand in PAMA has steadily increased over time, and although groundwater no longer meets all municipal demand in PAMA, municipal providers still depend on groundwater to meet more than 90 percent of their water demand. Surface water use has fluctuated over the historical period. Historically, all surface water use in the municipal sector in PAMA has been in the form of untreated water (urban irrigation) provided to residential subdivisions by the San Carlos Irrigation and Drainage District (SCIDD). The fluctuation in surface water demand is related to the fluctuating availability of surface water supply. Direct use of CAP water has increased over time, but has been fairly constant since the year 2002. Similarly, reclaimed water use was non-existent in the early years of the historical period, then increased in the mid-2000s, but has not continued to increase since then.

Municipal pumping is concentrated in the Eloy and Maricopa-Stanfield sub-basins, in the north central portion of the PAMA. Municipal demand is a considerably smaller component of total water demand in PAMA than agricultural demand, however the municipal sector in PAMA is growing.

The *Demand and Supply Assessment, Pinal Active Management Area* (Assessment) (ADWR, 2011) projected municipal demand in the PAMA to be between 113,000 and 119,000 ac-ft by the year 2025.

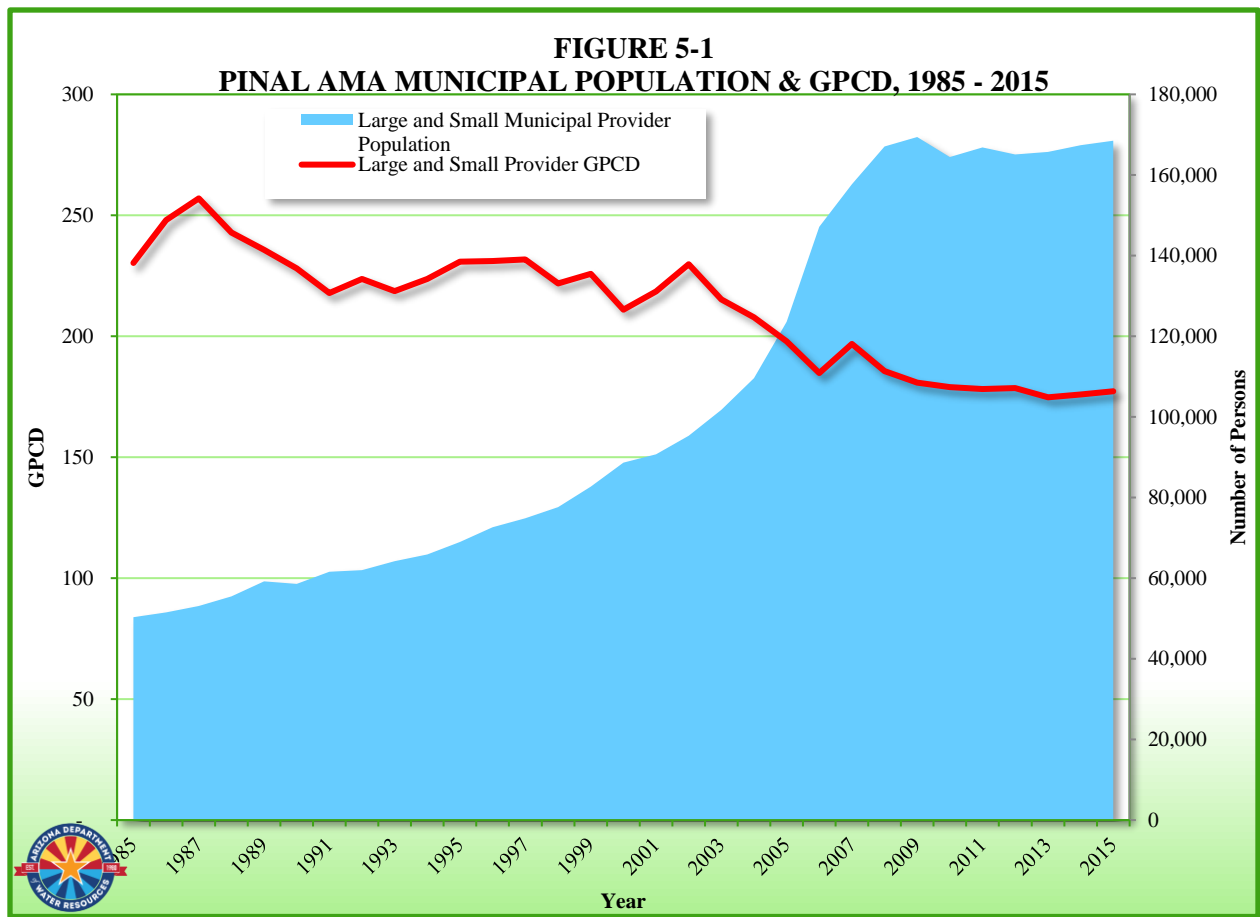
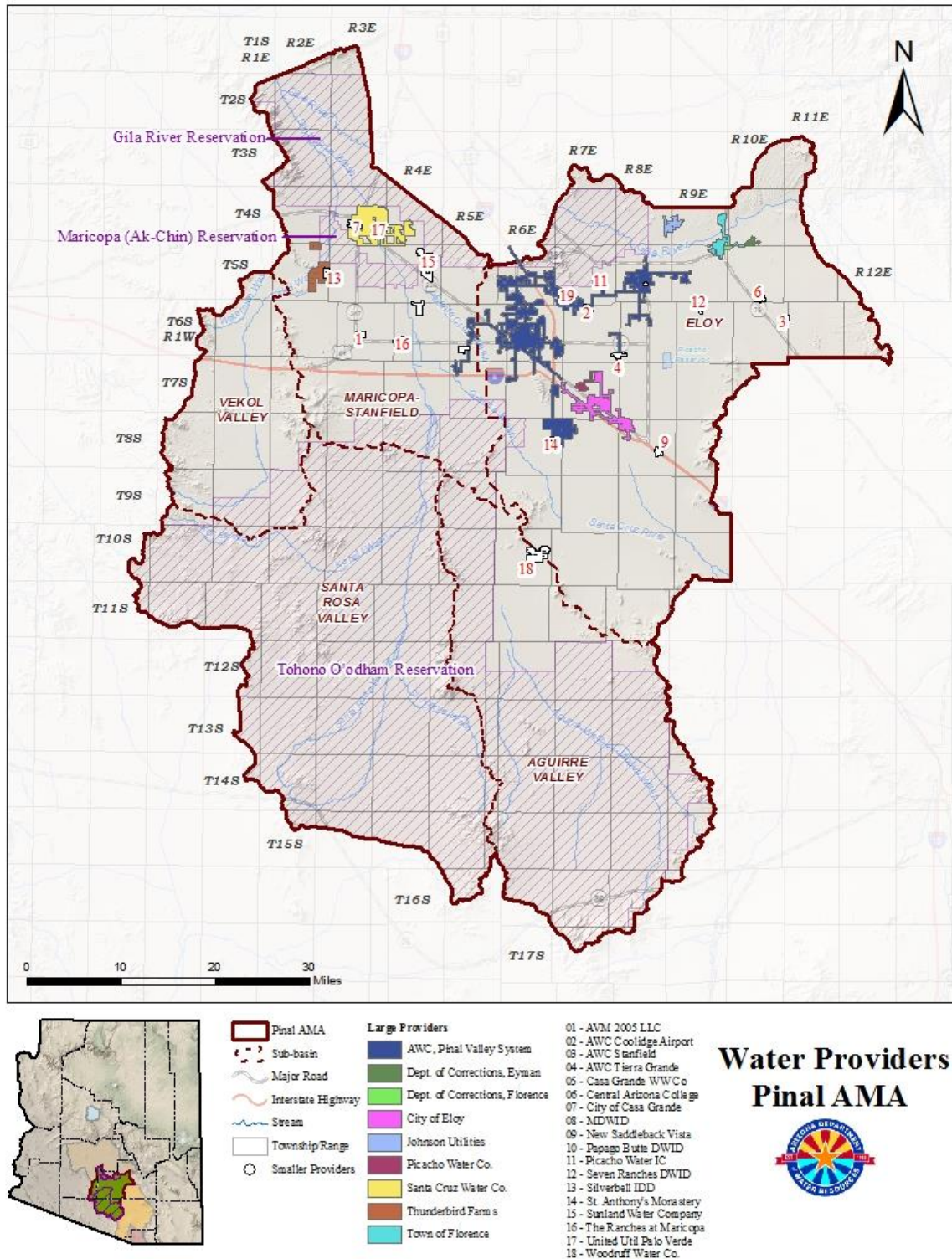


TABLE 5-1
PINAL AMA MUNICIPAL DEMAND, 1985 – 2015 (ac-ft)

Year	Municipal Demand	Ground water	Surface Water	Direct Use CAP	Recovered CAP	Direct Use Reclaimed Water	Recovered Reclaimed Water
1985	12,984	12,984					
1986	14,317	13,328	989				
1987	15,278	14,290	989				
1988	15,103	14,318	784				
1989	15,637	14,828	809				
1990	14,965	14,557	408				
1991	15,040	14,406	634				
1992	15,520	14,780	717			23	
1993	15,731	15,080	651				
1994	16,533	15,828	611	71		23	
1995	17,840	17,006	558	276			
1996	18,793	18,175	507	111			
1997	19,099	18,524	435	114		26	
1998	19,293	18,675	503	82		33	
1999	20,917	18,996	238	638	600	43	402
2000	20,953	19,715	94	326	621	31	166
2001	22,207	19,178	417	1,644	451	34	482
2002	24,531	20,177	184	3,228	600		341
2003	24,540	21,179	109	2,905	87	54	207
2004	25,520	21,225	96	3,053	315	66	765
2005	27,395	23,138	511	3,134		313	299
2006	30,448	26,375	347	2,659	302	509	256
2007	34,765	31,188	475	2,646	77	112	267
2008	34,746	31,088	499	2,662	23	341	134
2009	34,306	30,333	496	2,278	713	277	209
2010	32,965	29,942	517	2,312		194	
2011	33,316	30,768	266	2,047		234	
2012	33,019	30,769	253	1,686	0	311	
2013	32,441	29,778	181	2,174		308	
2014	32,976	30,123	240	2,373		241	
2015	33,463	24,336	292	2,775	5,193	255	611

FIGURE 5-2
MUNICIPAL WATER PROVIDERS IN THE PINAL AMA



5.2.3 Role of the Assured Water Supply Program in the Municipal Conservation Program

Assured Water Supply (AWS) means that sufficient water of adequate quality will be physically, legally and continuously available to meet the water needs of the proposed use for at least 100 years; that the projected use is consistent with the management plan and achievement of the management goal for the PAMA; and that the financial capability has been demonstrated to construct the water facilities necessary to make the supply of water available for the proposed use (A.R.S. § 45-576(J)).

Municipal providers who hold a DAWS are most prepared to address future needs, long-term drought and future climate variability with an extensive “water portfolio” (e.g. the sources of water supply used to demonstrate an AWS). Should a shortage of CAP water occur, such providers have demonstrated sufficient volumes of other sources of supply that they can store and recover, or treat and deliver directly, consistent with the safe-yield goal. It should be noted that all municipal providers are required to develop and file with ADWR drought mitigation and response plans.

For new development, the Code requires persons proposing to offer subdivided lands for sale or lease within an AMA to demonstrate that the proposed subdivision has an AWS (A.R.S. § 45-576). There are two mechanisms for demonstrating that a proposed subdivision has an AWS: the subdivider may apply for and obtain a Certificate of Assured Water Supply (CAWS) from the Director of ADWR; or the subdivider may obtain a written commitment of water service for the subdivision from a city, town or private water company which the Director has designated as having an AWS (A.R.S. § 45-576(A)). If a subdivider fails to demonstrate that a proposed subdivision has an AWS, the plat for the subdivision may not be approved by a city, town or county, and the Arizona Department of Real Estate will not issue a public report authorizing the sale or lease of the subdivided lands (A.R.S. § 45-576(B) and (C)).

Stored water recovered within the area of impact of storage can add to the volume of water that is determined to be physically available to an entity proving an AWS. Additional information on recharge and recovery for AWS purposes can be found in Chapter 8.

One criterion for proving an AWS is that groundwater use must be made consistent with the goal of the AMA except for a volume of water specified under the AWS Rules that is allowable. In the original AWS Rules the groundwater allowance in the PAMA was a considerable volume which renewed on an annual basis in perpetuity. The AWS Rules were modified for PAMA in 2007 to set limits on the groundwater allowance, which is a more appropriate water management approach considering the portion of PAMA’s goal related to preserving “future water supplies for non-irrigation uses.”

5.3 MUNICIPAL CONSERVATION PROGRAM DESCRIPTION

The following section describes the Municipal Conservation Program components for the PAMA 4MP. This program consists of two regulatory programs for large municipal providers: the NPCCP; and the Total GPCD Program. The program also includes a conservation program for small municipal providers, and a program for large untreated providers. The Municipal Conservation Program also contains requirements for the distribution of water for non-irrigation use by cities, towns, private water companies and irrigation districts. For a complete list of large as well as small municipal providers, and which are large untreated providers, see Appendix 5D.

5.3.1. Non-Per Capita Conservation Program

5.3.1.1 Introduction

The NPCCP is a performance-based program designed to achieve water use efficiency in the municipal provider's service area, equivalent to the water use efficiency assumed by the Director in establishing the per capita conservation requirements under the Total GPCD Program. Each year while regulated under the NPCCP, a provider must implement a basic public information program and one or more additional BMPs that are reasonably relevant to the provider's existing service area characteristics or water use patterns.

The municipal provider must select the additional BMPs from the list of BMPs approved by the Director in Appendix 5D. The number of additional BMPs that must be implemented depends on the total number of residential and non-residential service connections to the provider's water distribution system. Providers regulated under the NPCCP must submit a Provider Profile containing the information required under A.R.S. § 45-567.01.E before entering the program and must also submit a Conservation Efforts Report (CER) along with their Annual Water Withdrawal and Use Reports. A municipal BMP Advisory Committee was established in 2009 to assist ADWR in the evaluation of the effectiveness of the program throughout all five AMAs. The Advisory Committee was selected based on stakeholder recommendations to include a mix of policy staff and conservation practitioners and:

- at least one representative from each AMA and each tier (number of service connections tier) of the NPCCP
- several representatives from private water companies
- at least one representative each from a municipality with a DAWS and one without
- a representative from the agricultural use sector
- a representative from the Arizona Corporation Commission.

Current members of the municipal BMP Advisory Committee are found on ADWR's website:
<http://www.azwater.gov/AzDWR/WaterManagement/AMAs/ModifiedNon-PerCapita.htm>.

5.3.1.2 Regulated Parties

Large municipal providers that do not have a DAWS are required to be regulated under the NPCCP (A.R.S. § 56-567(C)). Large municipal providers with a DAWS (including those regulated under programs other than the GPCD during the third management period) will be regulated under the Total GPCD Program for the fourth management period unless they elect to be regulated under the NPCCP.

Large municipal providers with DAWS (including those regulated under the original NPCCP during the third management period) will be regulated under the Total GPCD Program for the fourth management period unless they elect to be regulated under the NPCCP. If they choose to be regulated under the NPCCP for the fourth management period, they will be required to notify the Director in writing that they elect to be regulated under the NPCCP for the fourth management period and include in that notice a Provider Profile containing the information required by A.R.S. § 45-567.01(E). The provider must begin complying with the NPCCP upon approval of the Provider Profile by the Director.

A new large municipal provider, including a small municipal provider whose deliveries expand to qualify as a large municipal provider during the fourth management period, that does not have a DAWS, must submit a Provider Profile within six months after receiving notice of its conservation requirements as a large municipal provider from the Director. The provider must begin complying with the NPCCP upon approval of the Provider Profile by the Director.

Small providers that consolidate to the degree that the consolidated entity now qualifies as a large municipal provider and that does not have a DAWS must submit a Provider Profile to the Director within 60 days after the consolidation becomes effective. The consolidated provider will be regulated under the NPCCP upon approval of the Provider Profile by the Director.

5.3.1.3 General requirements

Large municipal providers regulated under the NPCCP must also comply with individual user requirements, municipal distribution system requirements and monitoring and reporting requirements. Conservation requirements for individual users in the 4MP have not changed from those in the 3MP. These requirements pertain to turf-related facilities, large-scale cooling facilities and landscaping in publicly owned rights-of-way that receive groundwater from a large municipal provider.

The distribution system requirement that lost and unaccounted for water must be 10 percent or less has not changed from the 3MP. Monitoring and reporting requirements for large municipal providers have changed to require providers regulated under the NPCCP to report additional information in their annual CER (*See Section 5-611*).

Providers in the NPCCP will be placed in tiers based on the provider's combined total of residential and non-residential service connections. For municipal providers with multiple systems, each system having a separate Service Area Right will be treated separately and only the service connections within that system will be counted to determine the system's tier. In addition to the Basic Public Information Program which is required for all tiers, the additional number of BMPs that providers must implement is based on which tier they are in:

- Tier 1 – up to 5,000 service area connections: one additional BMP
- Tier 2 – 5,001 – 30,000 service area connections: five additional BMPs
- Tier 3 – more than 30,000 service area connections: ten additional BMPs

5.3.1.4 Provider Profile

A Provider Profile (Profile) is required of all large municipal providers regulated under the NPCCP. The Profile must contain the following information:

1. A description of the provider's existing service area characteristics and water use patterns;
2. The total number of service connections to the provider's water distribution system;
3. A description of the conservation measures the provider is currently implementing;
4. A description of the basic public information program and additional BMPs that the provider intends to implement to comply with the NPCCP; and
5. An explanation of how the additional BMPs are relevant to the provider's existing service area characteristics or water use patterns.

The Director must either approve or disapprove the Profile and send written notice of the decision to the provider. If the Director does not send written notice approving or disapproving a Profile within 90 days after receiving it, the Profile will be deemed approved (A.R.S. § 45-567.01(F)).

Profiles submitted by providers with a DAWS:

A large municipal provider with a DAWS that elects to be regulated under the NPCCP must include a Profile with the notice it submits to the Director. Regulation under the NPCCP begins on the date that the provider's Profile is approved by the Director. If the Director does not approve a Profile submitted by a

provider with a DAWS, the provider has three options: 1) submit a revised Profile, 2) continue to be regulated under the Total GPCD program or 3) appeal the decision pursuant to Title 41, Chapter 6, Article 10, Arizona Revised Statutes. If the Director disapproves a revised Profile, the provider may appeal the decision.

Profiles submitted by providers without a DAWS:

Large municipal providers that do not have a DAWS and that are serving water when the 4MP is adopted must submit a Profile to the Director by July 1, 2020. Regulation under the NPCCP begins on January 1, 2020 or the date that the provider's Profile is approved by the Director, whichever is later. New large municipal providers that do not have a DAWS and large municipal providers that have a DAWS when the 4MP is adopted but whose DAWS is terminated while they are regulated under the Total GPCD Program must submit a Profile to the Director within six months after receiving notice of their conservation requirements as a large municipal provider or notice of the termination of their DAWS, whichever applies.

If the Director disapproves a Profile submitted by a provider that does not have a DAWS, the provider has two options: 1) submit a revised Profile within 90 days after receiving written notice of the disapproval or 2) appeal the decision pursuant to Title 41, Chapter 6, Article 10, Arizona Revised Statutes. If the provider appeals the Director's decision and the decision is upheld on appeal, the provider must submit a revised Profile within 90 days after the Director's decision is final. If a revised Profile is not approved, the provider is out of compliance with its conservation requirements beginning on the date the Director's decision disapproving the revised Profile is final until a resubmitted Profile is approved.

If the total number of service connections to the provider's water distribution system increases to a higher tier while the provider is regulated under the NPCCP, the provider must submit a new Profile. ADWR recommends that providers submit an updated Profile every three years.

5.3.1.5 Basic education program

All providers regulated under the NPCCP shall implement a public education program (described in Appendix 5D) that includes the following components:

1. Communicating to customers at least twice a year:

Providers are required to inform customers about the importance of water conservation and how they can obtain conservation information from the provider. Examples of ways to communicate with customers include messages on water bills or water bill inserts, provider web page, post cards, newsletters or print pieces.

2. Providing free conservation materials to customers:

Providers are required to provide customers with free written information on water conservation (i.e., pamphlets, brochures), have the materials available in their offices, and send information to customers on request. Providers are encouraged to distribute water conservation information at other locations (i.e. libraries, chamber of commerce, town hall, etc.) as well.

5.3.1.6 Best Management Practices (BMPs)

The provider must select water conservation measures from the list in Appendix 5D or any future modifications of the list approved by the Director. All of the BMPs selected for implementation must be reasonably relevant to the provider's existing service area characteristics or water use patterns.

The provider must begin implementing all of the BMPs described in its Profile upon approval by the Director. A provider may discontinue implementing a BMP identified in its Profile, other than the public education program, and begin implementing a substitute BMP, if both of the following criteria are met:

1. The substitute BMP is on the list of approved BMPs described in Appendix 5D, Section II, or any modifications of the list.
2. The provider determines that the substitute BMP is reasonably relevant to its existing service area characteristics or water use patterns.

If a provider begins implementing a substitute BMP, the provider may discontinue implementing that substituted BMP and begin implementing a new substitute BMP under the criteria set forth above. A provider that substitutes a BMP must notify the Director of the substitution in its next CER (*See section 5.3.1.7*). If the Director determines that the substitute BMP is not reasonably relevant to the provider's existing service area characteristics or water use patterns, the provider will be notified and must resume implementing the discontinued BMP or a substitute BMP that the Director approves. The Director's determination may be appealed.

5.3.1.7 Conservation Efforts Report

A large municipal provider regulated under the NPCCP must include a CER for the previous calendar year with its Annual Water Withdrawal and Use Report (Annual Report) filed by March 31 of each year. The CER must include the following information:

1. A description of the basic public information program and additional BMPs implemented during the year.
2. The results of the activities implemented.
3. An assessment of each BMP implemented describing what works and what needs modification.
4. The provider's plan for implementation of BMPs during the current year.
5. If the provider substituted a BMP during the year, a description of the BMP that was discontinued, a description of the substitute BMP and an explanation of how the substitute BMP is relevant to the provider's existing service area characteristics or water use patterns.
6. A copy of the provider's current rate structure, unless no changes have been made to the rate structure since it was last submitted to ADWR.

5.3.1.8 Water Rate Structure

A large municipal provider regulated under the NPCCP must include in its Annual Report due by March 31 of each year a copy of its current water rate structure, unless no changes have been made to the rate structure since it was last submitted to the director.

5.3.1.9 Records Retention

A large municipal provider regulated under the NPCCP must keep and maintain accurate records verifying that the provider implemented the water conservation measures that it was required to implement and records of its water use during the year. The records for a given year must be kept and maintained for at least five years thereafter.

5.3.1.10 Individual User Requirements, Distribution System Requirements and Monitoring and Reporting Requirements

A large municipal provider regulated under the NPCCP must comply with the individual user requirements in Section 5-610, the conservation requirements for municipal distributions systems in Section 5-611, and the monitoring and reporting requirements in Section 5-612.

5.3.1.11 Review of NPCCP

The Director is required to periodically review the program, including the list of approved BMPs, to evaluate its effectiveness. The Director is authorized to establish an advisory committee, and to contract with an independent researcher to assist the Director in the evaluation. If the Director determines that changes are appropriate to improve the effectiveness of the program, and are consistent with the existing statutory provisions, the Director must modify the program pursuant to A.R.S. § 45-572. If the changes that the Director determines should be made are not consistent with the existing statutory provisions, the Director must give written notice of the appropriate changes to the Speaker of the House of Representatives, the President of the Senate and the Governor.

5.3.2 Total Gallons Per Capita per Day Conservation Program

For the 4MP, the Code allows the Director to determine if additional conservation requirements are needed beyond those assigned in the 3MP. Pursuant to this statutory requirement, ADWR analyzed information from Annual Reports including water deliveries, monthly water use by sector, water source and number of housing units added annually to each large municipal provider service area. Additional information that was reviewed included: US Census data; Arizona Department of Administration and local associations of governments population projection data; and individual interviews with large municipal providers to assess existing water conservation programs and determine water conservation potential.

In the PAMA 4MP, ADWR will calculate a total GPCD requirement for each large municipal provider not regulated under the NPCCP using a methodology different from the methodology used to calculate total GPCD requirements in the 3MP (described in more detail in Appendix 5A). Each large municipal provider will be noticed of its total GPCD requirement for its service area. Municipal providers may apply for variance from or administrative review of the conservation requirements within 90 days following the notice. Alternatively, a large municipal provider who has a DAWS may elect to be regulated under the NPCCP. A large municipal provider who has a DAWS and who does not enroll in the NPCCP will be regulated under the Total GPCD Program.

5.3.2.1 Total GPCD Program Description

A large municipal provider regulated under the Total GPCD Program must limit the annual gallons per capita per day water usage within its service area to the amount allowed under its total GPCD requirement. For the fourth management period, the component method of calculating the annual total GPCD requirement previously employed by ADWR will not be used. Instead, a large municipal provider regulated under this program will be required to meet its individual total GPCD requirement as shown in Appendix 5A. For each year in which the provider is regulated under the Total GPCD Program, the actual amount of water withdrawn, diverted or received by the provider for non-irrigation use will be compared to the amount allowed by its total GPCD requirement to determine compliance during that year. Compliance is determined pursuant to a flexibility account, which allows providers to use more water than their total GPCD requirement in some years, subject to a maximum negative account balance. Reclaimed water used directly from a treatment plant or stored underground and recovered within the area of impact of storage is not counted when determining a provider's compliance with its total GPCD requirement.

5.3.2.2 Total GPCD Program Development

Analysis of Water Conservation Potential

Conservation potential, based on historical water use, is an estimate of the amount of reduction in per capita water use that a municipal provider can achieve from implementing BMPs or water conservation programs. To determine the conservation potential of each large municipal provider in the 4MP, ADWR performed a statistical analysis of the historical per capita trend for each provider. ADWR set the GPCD requirement at the statistical median minus one standard deviation. However, the GPCD target will not be set lower than a computed minimum target and will not be set higher than the provider's final conservation requirement in the year prior to the first effective date of the PAMA 4MP GPCD conservation requirement. The computed minimum target is calculated based on updated conservation models for new single family development based on the use of <https://www3.epa.gov/watersense/products/index.html> and updated landscaping assumptions, the provider's 3MP non-residential component and 10 percent lost and unaccounted for water. This GPCD target was assumed to be the lowest GPCD rate the provider can reasonably achieve.

Total GPCD Compliance

Annual Population Estimates

Each time there is a decennial US Census, ADWR compiles the Census data to determine an updated decennial US Census base population for each provider. ADWR uses the provider's water distribution lines to select Census blocks likely served by the provider. Once ADWR determines the US Census base population for each provider, persons per housing unit and occupancy characteristics are obtained from the US Census American Community Survey at the tract or block group level of geography and are assigned to each provider's service area. Each year after the Census year, the provider's annual service area population is estimated based on the number of housing units the provider reports each year as having been added to its distribution system and multiplying those added housing units by the occupancy and persons per housing unit rates from the American Community Survey data assigned to the provider. The figures are corrected following each decennial Census.

Flexibility Account

To account for variations in weather, the flexibility account ADWR established in the 3MP will continue into the 4MP. The flexibility account allows large municipal providers regulated in the Total GPCD Program to accumulate 45 GPCD of credits or incur debits up to 15 GPCD.

Compliance Calculation

A large municipal provider's annual compliance with its total GPCD requirement will be determined by first calculating the total amount of water that the municipal provider is allocated for municipal use during the year. This allocation is calculated by multiplying the municipal provider's total GPCD requirement for the year by the municipal provider's service area population for the year and then multiplying the product by the number of days in the year.

The amount of water allocated to the municipal provider for municipal use is then compared to the total amount of water (from any source except direct use reclaimed water or reclaimed water recovered within the area of impact) withdrawn, diverted, and received by the municipal provider for municipal use during the year. If the allocated amount is greater than the amount withdrawn, diverted and received, the difference is credited to the municipal provider's flexibility account, subject to the maximum positive account balance. If the allocated amount is less than the amount withdrawn, diverted and received, the difference is debited to the municipal provider's flexibility account. The large municipal provider is out of compliance for the year if the debit causes the flexibility account to exceed the negative account balance limitation.

5.3.3 Lost and Unaccounted for Water

Large municipal providers must limit the amount of lost and unaccounted for water in their groundwater distribution systems to no more than 10 percent of the total quantity of water that enters its groundwater distribution system, calculated on an annual or three-year average basis (*See section 5-611*).

5.3.4 Conservation Requirements for New Large Municipal Providers

A new large municipal provider is defined as a city, town, private water company or irrigation district that begins serving more than 250 ac-ft of water for non-irrigation use per year after January 1, 2000. All new large providers that are designated as having an assured water supply will initially be assigned to the Total GPCD Program. Their total GPCD requirement will be calculated consistent with the statistical methodology used for existing large municipal providers. ADWR will determine the base year for the municipal provider as the year preceding the year in which the provider began serving greater than 250 ac-ft per year, unless the director determines that water usage during that year is not representative of historic water use. Additionally, ADWR will collect residential and non-residential water use data during the base year and the total gallons of water withdrawn, diverted or received by the provider in the service area.

A new large provider regulated under the Total GPCD Program may apply for an administrative review requesting a temporary adjustment to its total GPCD requirement in order to serve a turf-related facility. A temporary adjustment will be allowed if the provider demonstrates that direct use reclaimed water, or reclaimed water recovered within the area of impact, is committed to serve the turf-related facility beginning in four years, but a longer period is necessary for sufficient reclaimed water to be produced to serve the entire facility. The adjustment will remain in effect until sufficient direct use reclaimed water, or reclaimed water recovered within the area of impact, is available to serve the entire facility, but not longer than eight years, and may be adjusted as the volume of reclaimed water use increases. The adjustment will be terminated if the infrastructure necessary to deliver the reclaimed water is not in place at the beginning of the fourth year following the provider commencing service to the facility. If a new large municipal provider who has a DAWS cannot serve a turf-related facility under its existing per capita requirement, and direct use reclaimed water or reclaimed water recovered within the area of impact will not be physically available to serve the facility within a reasonable period of time, the provider may enroll in the NPCCP if it wishes to serve the facility.

A new large municipal provider that does not have a DAWS will be regulated under the NPCCP described in section 5-605. The provider must submit a Provider Profile containing the information described in section 5-605(B)(1) within six months after receiving written notice of its conservation requirements from the Director. The provider must begin complying with the NPCCP upon approval of the Provider Profile pursuant to section 5-605(B)(2) or (B)(3).

5.3.5 Conservation Requirements for Consolidated Municipal Providers and Providers that Acquire or Convey a Portion of a Service Area

If two or more municipal providers consolidate their service areas and the consolidated provider qualifies as a large municipal provider it will be regulated as follows:

1. If the consolidated provider has a DAWS, it will be assigned to the Total GPCD Program and its GPCD will be calculated by prorating the respective per capita targets, populations and water use as appropriate. The consolidated provider may elect to be regulated under the NPCCP.
2. If the consolidated provider does not have a DAWS, the provider must submit an updated Provider Profile to the Director as described in section 5-605(B)(1) within 60 days after the consolidation becomes

effective. The consolidated provider will be regulated under the NPCCP described in section 5-605 upon approval of the Provider Profile by the Director.

Providers that acquire or convey a portion of a service area continue to be regulated under the conservation program under which they were regulated prior to the acquisition or conveyance. However, if the conveying or acquiring provider does not have a DAWS, it will be regulated under the NPCCP regardless of whether it was regulated under that program prior to the conveyance or acquisition. If the conveying or acquiring provider is regulated under the NPCCP after the conveyance or acquisition, and it was regulated under that program immediately prior to the conveyance or acquisition, the provider must submit a new Provider Profile to the Director if either: (1) the conveyance or acquisition resulted in the total number of service area connections to the provider's water distribution system increasing or decreasing to a new tier level; or (2) the Director determines that the provider's service area characteristics or water use patterns have changed.

5.3.6 Conservation Requirements for Large Untreated Water Providers

A large untreated water provider must limit its deliveries of untreated water during a year to an amount calculated by multiplying the number of gross acres of land to which it serves untreated water by an average application rate of 4 ac-ft per acre. A gross acre is the entire acre, including associated structures, but not including any acres regulated as a turf-related facility. A large untreated water provider must also meet the individual user requirements, distribution system requirements and the monitoring and reporting requirements.

5.3.7 Conservation Requirements for Small Municipal Providers

During the fourth management period, small providers will continue to be required to minimize waste of all water supplies, maximize efficiency in outdoor watering, encourage reuse of water supplies and improve water use efficiency as feasible. Small providers also must comply with lost and unaccounted for standards as well as certain other reporting requirements described below.

5.3.8 Regulatory Requirements for All Municipal Providers

The following requirements have been established for all municipal providers: individual user requirements, distribution system requirements and monitoring and reporting requirements. Each is described in this section.

5.3.8.1 Individual User Requirements

An individual user is a person who receives water from a municipal provider for non-irrigation use. For the 4MP, the director is required to establish "additional conservation requirements for non-irrigation uses..." (A.R.S. § 45-567 (A)(2)). However, in the 4MP ADWR has not modified the 3MP individual user requirements and has not included any additional conservation requirements for individual users from those included in the 3MP. In the 3MP, individual user requirements were established for turf-related facilities, publicly owned rights-of-way and large cooling towers. These requirements have been retained for the 4MP.

Either the individual user or the municipal provider serving the individual user is responsible for complying with the individual user requirement. See section 5-610 for determining responsibility for compliance with the individual user requirements.

5.3.8.2 Distribution System Requirements

Lost and unaccounted for water is defined as the total water from any source, except direct use reclaimed water, withdrawn, diverted or received in a year minus the total amount of authorized deliveries made by the municipal provider in that year. Lost and unaccounted for water includes line leakage, meter under-registration, evaporation or leakage from storage ponds or tanks, system and hydrant leaks or breaks and illegal connections.

All municipal providers are required to meet an efficient lost and unaccounted for water standard in their service areas. Lost and unaccounted for water will be determined for each municipal provider based on the total quantity of metered and unmetered water deliveries and the total water pumped, received or diverted by the municipal provider for each calendar year, excluding direct use reclaimed water. Small municipal providers must maintain lost and unaccounted for water at or below 15 percent. Large municipal providers are required to maintain their system not to exceed 10 percent lost and unaccounted for water. Large untreated water providers are required to either line all canals used to deliver untreated water to the provider's delivery points with a material that allows no more lost water than a well-maintained concrete lining, or operate and maintain its distribution system to limit lost and unaccounted for water at or below 10 percent.

For the fourth management period, ADWR will allow providers to exclude water from the lost and unaccounted for water calculation that is metered or estimated using approved estimating procedures and used pursuant to other regulatory requirements such as well purging and line flushing. Providers may also exclude estimated water uses such as construction (truck loads for dust control) or fire services, but all other uses of water within a distribution system must be metered. Appendix 5C provides a complete list of uses that are considered in the lost and unaccounted for water calculation and those uses which can be estimated to determine the volume.

5.3.8.3 Monitoring and Reporting Requirements

All municipal providers, including providers regulated under the NPCCP, are required to annually report to ADWR:

- 1) information on the total quantity of water withdrawn, diverted or received that enters the groundwater distribution system during the year;
- 2) total quantity of water used within the service area and the total volume of water delivered for various municipal purposes;
- 3) total number of housing units by unit type added to the service area from December 31 of the previous calendar year to December 31 of the reporting year;
- 4) all movements of water made by the provider during the year, including water accepted from another entity (received) that was subsequently sent (delivered) to be stored at a GSF or underground storage facility and stored water that was recovered during the year, whether annual or long-term credit recovery, regardless of the water type;
- 5) volume of water ordered from an irrigation district that was released by the irrigation district from a storage or distribution facility but not accepted by the municipal provider or delivered to any other person;
- 6) an updated water service area and distribution system map delineating all distribution lines greater than 4 inches, all treatment works and all well sites;
- 7) all wells operated by the municipal provider, regardless of the type of water withdrawn from the well.

Large municipal providers are required to separately measure and report the amount of water delivered via

the provider's groundwater distribution system each month for: irrigation uses; residential uses separated by single family and multifamily; and non-residential uses, separated by water use categories, including turf-related facility use, commercial use, industrial use, government use, construction use, surface water treatment, and other uses. A large municipal provider regulated under the NPCCP must submit a CER, as described in Section 5-605(E), and must also report the total number of service connections within the provider's water distribution system as of the end of the reporting year.

5.4 INCENTIVES FOR THE USE OF RENEWABLE SUPPLIES AND REMEDIATED GROUNDWATER

Since the adoption of the Code, a number of incentives have been developed in both the management plans and statutes to increase the use of non-groundwater supplies. For instance, the management plans have exempted reclaimed water (directly used or stored underground and recovered from within the area of impact) from the per capita use rate for municipal providers under the Total GPCD Program.

Legislation enacted in 1997 and amended in 1999 significantly revised the Water Quality Assurance Revolving Fund (WQARF) Program to provide incentives for the use of remediated groundwater to facilitate the treatment of contaminated groundwater.

Among other provisions, the WQARF legislation provides that when determining compliance with management plan conservation requirements, ADWR shall account for most uses of groundwater withdrawn pursuant to approved remedial action projects under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) or Title 49, Arizona Revised Statutes, except for groundwater withdrawn to provide an alternative water supply consistent with A.R.S. § 49-282.03, consistent with its accounting for surface water (*See Chapter 7, Section 7.4.4.6.*) (1999 Ariz. Sess. Law, H.B. 2189, § 51(B)). Groundwater withdrawn pursuant to an approved remedial action project retains its legal character as groundwater for all other purposes under Title 45, Arizona Revised Statutes, including all other laws regulating groundwater withdrawal and use, such as: (1) the assessment of withdrawal fees pursuant to A.R.S. § 45-611 et seq.; (2) regulation of water exchanges as set forth in A.R.S. § 45-1001 et seq.; (3) transportation of groundwater as set forth in A.R.S. § 45-541 et seq.; (4) withdrawals of groundwater for transportation to active management areas as set forth in A.R.S. § 45-551 et seq.; and (5) underground water storage, savings and replenishment as set forth in Title 45, Chapter 3.1, Arizona Revised Statutes.

As of 2015, the Arizona Department of Environmental Quality (ADEQ) has not identified any WQARF projects in Pinal County, most of which is contained within the PAMA (*See http://www.azdeq.gov/environ/waste/sps/download/wqarf_registry2015.pdf*). The annual amount of groundwater eligible for the remediated groundwater accounting incentive is generally equal to the maximum annual volume of groundwater that may be withdrawn pursuant to each project, as specified in the consent decree or other documents approved by the US Environmental Protection Agency (EPA) or ADEQ. However, if a project was approved prior to June 15, 1999, and the maximum annual volume of groundwater that may be withdrawn pursuant to the project is not specified in a consent decree or other document approved by the EPA or ADEQ, the annual amount of groundwater that is eligible for the remediated groundwater accounting incentive is the highest annual use of groundwater withdrawn pursuant to the project prior to January 1, 1999. The Director may modify the annual amount of groundwater eligible for the accounting incentive if an increase in withdrawals is necessary to further the purpose of the project or if a change is made to the consent decree or other document approved by the EPA or ADEQ.

In order to qualify for the remediated groundwater accounting incentive, a person must notify the Director in writing of the anticipated withdrawal of the groundwater prior to its withdrawal. The notification must include a copy of a document approved by ADEQ or the EPA, such as the Remedial Action Plan (RAP), Record of Decision (ROD) or consent decree. Unless specified in the document, the notification must include the volume of groundwater that will be pumped annually pursuant to the project, the time period to which the document applies, and the annual authorized volume of groundwater that may be withdrawn pursuant to the project. The notification must also include the purpose for which the remediated groundwater will be used and the name and telephone number of a contact person. Additionally, at the time the notice is given, the person must be using remediated groundwater pursuant to the approved remedial action or must have agreed to do so through a consent decree or other document approved by ADEQ or the EPA. Remediated groundwater which qualifies for the accounting must be metered and reported separately from groundwater that does not qualify for the accounting (*See section 5-613 of the Municipal Conservation, Monitoring and Reporting Requirements*).

5.5 NON-REGULATORY EFFORTS

ADWR has a program for water management assistance in the AMAs. Funding for the program comes from an annual withdrawal fee levied and collected from all large groundwater users in the AMAs. Since the Water Management Assistance program began, the PAMA has funded several projects that promote prudent water management within the PAMA. Additional information is discussed in Chapter 9.

5.6 MUNICIPAL CONSERVATION, MONITORING, AND REPORTING REQUIREMENTS**5-601. Definitions**

In addition to the definitions set forth in Chapters 1 and 2 of Title 45 of the Arizona Revised Statutes, unless the context otherwise requires, the following words and phrases used in this chapter shall have the following meanings:

1. *“4MP” means the Fourth Management Plan for the Pinal Active Management Area.*
2. *“5MP” means the Fifth Management Plan for the Pinal Active Management Area.*
3. *“ADWR” means the Arizona Department of Water Resources.*
4. *“ADWR’s Low Water Use/Drought Tolerant Plant List for the PAMA” means the list of low water / drought tolerant plants found on ADWR’s website, http://www.azwater.gov/AzDWR/StatewidePlanning/Conservation2/LandscapePros/PlantLists_Landscaping.htm, including any modifications to the list.*
5. *“Canal” means a waterway constructed for the purpose of transporting water to a point of delivery, including main canals and lateral canals.*
6. *“CAP water” means Central Arizona Project water.*
7. *“CER” means the Conservation Efforts Report required to be filed by a large municipal provider regulated under the Non-Per Capita Conservation Program as provided in Section 5-605(E).*
8. *“Common area” means a recreational or open space area or areas owned and operated as a single integrated facility and maintained for the benefit of the residents of a housing development.*
9. *“Construction use” means a use of water for construction purposes, including the use of water for dust control, compaction and preparation of building materials on construction sites.*
10. *“Direct use reclaimed water” means effluent that is transported directly from a facility regulated pursuant to Title 49, Chapter 2, Arizona Revised Statutes, to an end user. Direct use reclaimed water does not include effluent that has been stored pursuant to Title 45, Chapter 3.1, Arizona Revised Statutes.*
11. *“Existing individual user” means an individual user that was receiving water from a municipal provider as of the date the 4MP was adopted.*
12. *“Existing large municipal provider” means a large municipal provider that was in operation and was serving water on or before the date of adoption of the 4MP.*
13. *“Exterior water use” means non-residential or residential uses of water for landscaping, pools, evaporative cooling systems, decorative fountains and other outdoor uses of water.*

14. *“GPCD” means gallons of water per capita per day.*
15. *“Groundwater distribution system” means a system of pipes, canals or other works within a municipal provider’s service area which are owned and operated by the provider to collect, store, treat or deliver groundwater for non-irrigation use, regardless of whether other types of water are also present in the system.*
16. *“Housing unit” means a group of rooms or a single room occupied as separate living quarters. Housing unit includes a single family home, a patio home, a townhouse, a condominium, an apartment, a permanently set-up mobile home or a unit in a multifamily complex. Housing unit does not include a mobile home in an overnight or limited-stay mobile home park or a unit in a campground, motel, hotel or other temporary lodging facility. A housing unit may be occupied by a family, a family and unrelated persons living together, two or more unrelated persons living together or by one person.*
17. *“Individual User” means a person receiving groundwater from a municipal provider for non-irrigation uses to which specific conservation requirements apply, including turf-related facilities, large-scale cooling facilities and publicly-owned rights-of-way.*
18. *“Interior water use” means non-residential or residential indoor uses of water, including toilet flushing, bathing, drinking and washing.*
19. *“Landscapable area” means the entire area of a lot less any areas covered by structures, parking lots, roads and any other area not physically capable of being landscaped.*
20. *“Large municipal provider” means a municipal provider serving more than 250 ac-ft of water for non-irrigation use during a calendar year.*
21. *“Large-scale cooling facility” means a facility which has control over cooling operations with a total combined cooling capacity greater than or equal to 1,000 tons. For the purposes of this definition, the minimum cooling tower size which shall be used to determine total facility cooling capacity is 250 tons. A large-scale cooling facility does not include a large-scale power plant that utilizes cooling towers to dissipate heat.*
22. *“Large untreated water provider” means a municipal provider that as of January 1, 1990 was serving untreated water to at least 500 persons or supplying at least 100 ac-ft of untreated water during the calendar year.*
23. *“Lost and unaccounted for water” means the total quantity of water from any source that enters a municipal provider’s groundwater distribution system during a calendar year less the total quantity of authorized deliveries of water from the groundwater distribution system during the calendar year that are metered deliveries or deliveries that the municipal provider accounts for by a method of estimating water use approved by the Director.*
24. *“Lost water” means untreated water from any source that enters an untreated water distribution system and is lost from the system during transportation or distribution due to seepage, evaporation, leaks, breaks, phreatophyte use or other similar or dissimilar causes.*

25. *“Multifamily housing unit” means a mobile home in a mobile home park and any permanent housing unit having one or more common walls with another housing unit located in a multifamily residential structure, and includes a unit in a duplex, triplex, fourplex, condominium development, town home development, or apartment complex.*
26. *“Municipal distribution system” means a system of pipes, canals or other works within a municipal provider’s service area which are owned and operated by the provider to collect, store, treat or deliver water for non-irrigation use.*
27. *“Municipal provider” means a city, town, private water company or irrigation district that supplies water for non-irrigation use.*
28. *“NPCCP” means the Non-Per Capita Conservation Program.*
29. *“New Individual User” means an Individual User that begins receiving water from a municipal provider after adoption of the 4MP.*
30. *“New large municipal provider” means a municipal provider that begins serving more than 250 ac-ft of water for non-irrigation use during a calendar year after the date of adoption of the 4MP.*
31. *“Non-residential customer” means a person who is supplied water by a municipal provider for a non-irrigation use other than a residential use.*
32. *“Reclaimed water” has the same definition as effluent in A.R.S. § 45-101.*
33. *“Reclaimed water recovered within the area of impact” means reclaimed water that has been stored pursuant to Title 45, Chapter 3.1, Arizona Revised Statutes, and recovered within the area of impact of storage. For purposes of this definition, “area of impact” has the same meaning as prescribed by A.R.S. § 45-802.01.*
34. *“Reclaimed water recovered outside the area of impact” means reclaimed water that has been stored pursuant to Title 45, Chapter 3.1, Arizona Revised Statutes, and recovered outside the area of impact of storage. For purposes of this definition, “area of impact” has the same meaning as prescribed by A.R.S. § 45-802.01.*
35. *“Remedial Groundwater” means groundwater withdrawn pursuant to an approved remedial action project, but does not include groundwater withdrawn to provide an alternative water supply pursuant to A.R.S. § 49-282.03.*
36. *“Residential customer” means a person who is supplied water by a municipal provider for a residential use.*
37. *“Residential use” means a non-irrigation use of water related to the activities of a single family or multifamily housing unit or units, including exterior water use.*
38. *“Service area” has the definition prescribed by A.R.S. § 45-402.*

39. *“Service area population” means the number of people residing in housing units connected to distribution lines maintained by the municipal provider within its service area which are being served as of December 31 of the applicable year, as determined pursuant to section 5-603, subsection C.*
40. *“Service connection” means a coupling of a municipal provider’s distribution system and its customer’s water system.*
41. *“Single family housing unit” means a detached dwelling, including mobile homes not in mobile home parks.*
42. *“Small municipal provider” means a municipal provider that supplies 250 ac-ft or less of water for non-irrigation use during a calendar year.*
43. *“Turf-related facility” means any facility, including a school, park, cemetery, golf course, or common area of a housing development, with a water-intensive landscaped area of 10 or more acres.*
44. *“Untreated water” means water that is not treated to improve its quality and that is supplied by a municipal provider through a distribution system other than a potable water distribution system.*
45. *“Untreated water municipal distribution system” means a municipal distribution system operated by a large untreated water provider for the purpose of delivering untreated water for non-irrigation use.*
46. *“Water-intensive landscaped area” means, for a calendar year, an area of land which is watered with a permanent water application system and planted primarily with plants not listed in ADWR’s Low Water Use Plant List or modifications to the list, and the total surface area of all bodies of water filled or refilled with water from any source, including reclaimed water, that are an integral part of the landscaped area. Bodies of water used primarily for swimming purposes are not an integral part of a landscaped area.*
47. *“Water movement” means, the receipt or delivery of any type of water for direct use by customers, for use within a municipal water service area, or to or from another entity, including underground and groundwater savings facility storage and annual or long-term credit recovery. Water movements also include deliveries and receipts from other entities that are not required to file an annual water withdrawal and use report, such as the Central Arizona Water Conservation District, local or regional wastewater treatment plants owned by a county or other entity, and Indian reservations.*

5-602. Large Municipal Providers - Conservation Programs

- A. *Except as provided in subsection D of this section, beginning with calendar year 2020 or the calendar year specified in Section 5-607(A)(1) and continuing thereafter until the first compliance date for any substitute municipal conservation requirement in the 5MP, a large municipal provider designated as having an assured water supply shall be regulated under the Total Gallons Per Capita Per Day (GPCD) Program described in section 5-603, unless the*

provider elects to be regulated under the NPCCP described in section 5-605 as provided in subsection B of this section.

- B. A large municipal provider designated as having an assured water supply may elect to be regulated under the NPCCP described in section 5-605 at any time after adoption of the 4MP by giving the Director written notice of the election together with a Provider Profile pursuant to section 5-605(A)(2)(a). If the provider elects to be regulated under the NPCCP, the provider shall continue complying with the conservation requirements in effect for the provider at the time it notifies the Director of the election until the Director approves the provider's Provider Profile pursuant to section 5-605(B)(2) or (B)(3), at which time the provider shall comply with the NPCCP.*
- C. A large municipal provider that is not designated as having an assured water supply shall submit a Provider Profile to the Director as prescribed in section 5-605(A). The provider shall be regulated under the NPCCP described in section 5-605 beginning on January 1, 2020 or the date the Director approves the provider's Provider Profile pursuant to section 5-605(B)(2) or (3), whichever is later, and continuing thereafter until the first compliance date for any substitute municipal conservation requirement in the 5MP. Until the provider is regulated under the NPCCP as provided in this subsection, the provider shall continue to be regulated under the conservation program under which it was regulated at the time the 4MP was adopted.*
- D. If the Director designates a large municipal provider as having an assured water supply while the provider is regulated under the NPCCP described in section 5-605, the provider shall continue to be regulated under the NPCCP unless the provider gives written notice to the Director that it elects to be regulated under the Total GPCD Program described in section 5-603. If the provider elects to be regulated under the Total GPCD Program, the Director shall give written notice to the provider of its total GPCD requirements and the provider shall comply with the total GPCD requirements beginning on the date specified in the notice and continuing thereafter until the first compliance date for any substitute municipal conservation requirement in the 5MP.*
- E. All municipal providers shall comply with individual user requirements, distribution system requirements, and applicable monitoring and reporting requirements as prescribed in sections 5-609, 5-610, and 5-611.*

5-603. Large Municipal Provider Total Gallons Per Capita per Day Program

- A. Total Gallons Per Capita per Day Requirement*

Beginning with the calendar year specified in Section 5-602, subsection A or D, or Section 5-607 (A)(1), whichever applies, and continuing until the first compliance date for any substitute municipal conservation requirement in the 5MP, a large municipal provider regulated under the Total GPCD Program shall withdraw, divert or receive water from any source, except direct use reclaimed water and reclaimed water recovered within the area of impact, for non-irrigation use during a year at or below its total GPCD requirement as calculated by the Director using the methodology set forth in Appendix 5A. The total GPCD requirements calculated by the Director for existing large municipal providers that are designated as having an assured water supply on the date the 4MP is adopted are shown in Appendix 5A.

B. Compliance with Total Gallons Per Capita per Day Requirement

The Director shall determine if a large municipal provider is in compliance with its total GPCD requirement for a calendar year pursuant to the flexibility account provisions in section 5-604, using the provider's service area population for the year as calculated in subsection C of this section.

C. Calculation of Large Municipal Provider's Service Area Population

The Director shall calculate a large municipal provider's service area population for a calendar year as follows, unless the Director has approved an alternative methodology for calculating the provider's service area population prior to the calendar year in question:

- 1. Determine the number of single family and multifamily housing units added to the provider's distribution system between December 31 of the previous calendar year and December 31 of the calendar year in question, less any units removed from the system during that period.*
- 2. Adjust these totals by the respective average annual vacancy rate for single family housing units and multifamily housing units as calculated from the most recent United States Census Bureau American Community Survey data for the geographic area most closely corresponding to the provider's service area or other source of information approved by the Director.*
- 3. Multiply the adjusted number of single family housing units calculated in 2 above by the average number of persons per occupied single family housing unit as calculated in accordance with the most recent United States Census Bureau American Community Survey data for the geographic area most closely corresponding to the provider's service area or other source of information approved by the Director. The result is the provider's new single family population for the year in question.*
- 4. Multiply the adjusted number of multifamily housing units calculated in 2 above by the average number of persons per occupied multifamily housing unit as calculated in accordance with the most recent United States Census Bureau American Community Survey data for the geographic area most closely corresponding to the provider's service area or other source of information approved by the Director. The result is the provider's new multifamily population for the calendar year in question.*
- 5. Add the results of 3 and 4 to the provider's new single family population and new multifamily population for each year since the most recent decennial US Census year, and add that sum to the provider's decennial US Census service area population. The sum is the provider's service area population for the calendar year in question.*

5-604. Compliance with Total Gallons Per Capita per Day Requirement - Flexibility Account

A. Total GPCD Program Flexibility Account

The Director shall determine if a large municipal provider regulated under the Total GPCD Program is in compliance with its total GPCD requirement through the maintenance of a flexibility account for the provider which shall operate as follows:

1. *Each provider regulated under the Total GPCD Program shall be assigned a flexibility account. The beginning balance in the flexibility account of a provider that was regulated under the Total GPCD Program in the 3MP shall be the ending balance in the flexibility account maintained for the provider under section 5-106 of the 3MP. The beginning balance in the flexibility account of all other large municipal providers shall be zero.*
2. *Following each calendar year in which the provider withdraws, diverts or receives groundwater for non-irrigation use, beginning with the first calendar year in which the provider is regulated under the Total GPCD Program as provided in Section 5-602(A) or (D), or Section 5-607(A)(1) the Director shall adjust the provider's flexibility account as follows:*
 - a. *Determine the total gallons of water from any source, except direct use reclaimed water and reclaimed water recovered within the area of impact, withdrawn, diverted or received by the provider during the calendar year for non-irrigation use, and then subtract that amount from the provider's total GPCD allotment for the year, as calculated in subparagraph d of this paragraph.*
 - b. *If the result in subparagraph a above is negative, debit the flexibility account by this volume.*
 - c. *If the result in subparagraph a above is positive, credit the flexibility account by this volume.*
 - d. *The provider's total GPCD allotment for a calendar year is calculated by multiplying the provider's total GPCD requirement for the calendar year, as assigned to the provider by the Director using the methodology in Appendix 5A, by the provider's service area population as of December 31 of the year, as calculated pursuant to section 5-603(C), and then multiplying the product by the number of days in the calendar year.*
3. *The account balance existing in a provider's flexibility account after the adjustment provided for in paragraph 2 of this subsection is made shall carry forward subject to the following limitations:*
 - a. *The maximum positive account balance allowed in the flexibility account of a provider regulated under the Total GPCD Program shall be calculated by multiplying the provider's service area population as of December 31 of the previous calendar year by a GPCD rate of 45, and then multiplying that product by the number of days in the calendar year. If the account balance exceeds the maximum positive account balance after any credits are registered, the balance carried forward shall equal the maximum positive account balance allowed in the provider's flexibility account for that year.*
 - b. *The maximum negative account balance allowed in the flexibility account of a provider regulated under the Total GPCD Program shall be calculated by multiplying the provider's service area population as of December 31 of the previous calendar by a GPCD rate of -15, and then multiplying that product by the number of days in the calendar year. If the account balance exceeds the maximum negative account balance*

after any debits are registered, the balance carried forward shall equal the maximum negative account balance allowed in the provider's flexibility account for that year.

B. Compliance Status

If the adjustment to a large municipal provider's flexibility account following a calendar year as provided for in subsection A of this section causes the account to have a negative account balance which exceeds the maximum negative account balance allowed in the provider's flexibility account for the year as calculated in 5-604(A)(3)(b) the provider is out of compliance for that calendar year.

5-605. Non-Per Capita Conservation Program

A. Provider Profile – Submittal Date

1. Large municipal providers not designated as having an assured water supply

- a. An existing large municipal provider that is not designated as having an assured water supply shall submit a Provider Profile to the Director as described in 5-605(B)(1) of this section no later than July 1, 2020.*
- b. A new large municipal provider that is not designated as having an assured water supply and that receives written notice of the NPCCP from the Director shall submit a Provider Profile to the Director as described in subsection B, paragraph 1 of this section no later than six months after the date of the notice.*

2. Large municipal providers designated as having an assured water supply

- a. A large municipal provider that is designated as having an assured water supply and that elects to be regulated under the NPCCP shall submit a Provider Profile to the Director as described in 5-605(B)(1) of this section at the time the provider submits written notice to the Director that the provider elects to be regulated under the NPCCP.*
- b. A large municipal provider that is designated as having an assured water supply and whose designation of assured water supply is terminated while the provider is regulated under the Total GPCD Program described in section 5-603 shall submit to the Director a Provider Profile as described in 5-605(B)(1) of this section no later than six months after the designation is terminated.*

B. Provider Profile – Contents; Review; Approval or Disapproval

- 1. A Provider Profile required by subsection (A) of this section shall contain the following information:**
 - a. A description of the provider's existing service area characteristics and water use patterns.*
 - b. The total number of service connections to the provider's water distribution system,*

including residential and non-residential connections.

- c. A description of the conservation measures currently being implemented by the provider.*
 - d. A description of the conservation measures that the provider intends to implement to comply with subsection (D)(1) of this section.*
 - e. An explanation of how each of the conservation measures that the provider will implement to comply with subsection (D)(1)(b) of this section is relevant to the provider's existing service area characteristics or water use patterns.*
- 2. Within 90 days after receiving a large municipal provider's Provider Profile, the Director shall approve or disapprove the Provider Profile and send written notice of the decision to the provider. The Director shall approve the Provider Profile if the Director determines that the profile contains information demonstrating that the provider will implement at least the minimum number of best management practices required pursuant to subsection (D)(1) of this section and that the conservation measures to be implemented pursuant to subsection (D)(1)(b) of this section are reasonably relevant to the provider's existing service area characteristics or water use patterns. If the Director disapproves the Provider Profile, the Director shall include with the written notice of the decision the reasons for the disapproval. A decision of the Director disapproving a Provider Profile is an appealable agency action pursuant to Title 41, Chapter 6, Article 10. If the Director fails to send the provider written notice approving or disapproving the Provider Profile within 90 days after receiving the Provider Profile, the Provider Profile shall be deemed approved.*
- 3. If the Director disapproves the Provider Profile submitted by a large municipal provider that is not designated as having an assured water supply, within 90 days after the date of the Director's written notice disapproving the Provider Profile, or within 90 days after the Director's decision is final if the provider files a timely notice of appeal of the decision pursuant to Title 41, Chapter 6, Article 10, the provider shall revise the Provider Profile to correct the deficiencies identified by the Director in the written notice and submit the revised Provider Profile to the Director. If the Director disapproves the Provider Profile submitted by a large municipal provider that is designated as having an assured water supply, the provider may revise the Provider Profile to correct the deficiencies identified by the Director in the written notice disapproving the Provider Profile and may submit the revised Provider Profile to the Director. The Director shall approve or disapprove a revised Provider Profile submitted under this paragraph pursuant to paragraph 3 of this subsection. If the Director disapproves the revised Provider Profile:*
 - a. The decision is an appealable agency action pursuant to Title 41, Chapter 6, Article 10.*
 - b. If the provider is not designated as having an assured water supply, the provider is in violation of A.R.S. § 45-567.01 beginning on the date the Director's decision is final until the provider submits a Provider Profile that is approved by the Director.*

C. Commencement of Regulation under Non-Per Capita Conservation Program

1. *An existing large municipal provider that is not designated as having an assured water supply shall be regulated under the NPCCP beginning January 1, 2020 or the date the provider's Provider Profile is approved by the Director pursuant to subsection B of this section, whichever is later.*
2. *A new large municipal provider that is not designated as having an assured water supply shall be regulated under the NPCCP beginning on the date the provider's Provider Profile is approved by the Director pursuant to subsection B of this section.*
3. *A large municipal provider that is designated as having an assured water supply and that elects to be regulated under the NPCCP shall be regulated under the program beginning on the date the Director approves the provider's Provider Profile pursuant to subsection B of this section.*

D. Required Best management practices

1. *A large municipal provider regulated under the Non-Per Capita Conservation Program shall implement all of the following best management practices while regulated under the program:*
 - a. *The Basic Public Information Program described in Appendix 5C.*
 - c. *One or more additional best management practices selected from the list of additional best management practices in Appendix 5C or any modification of the list made pursuant to the modification procedure described in Appendix 5C as posted on ADWR's website. The additional best management practices shall be reasonably relevant to the provider's service area characteristics or water use patterns. The exact number of additional best management practices required to be implemented under this sub-paragraph shall be determined based on the total number of service connections to the provider's water distribution system and the following three tier levels:*

Total number of service connections <i>(includes both residential and non-residential)</i>	Required number of additional Best Management Practices
Tier 1 5,000 or fewer connections	One
Tier 2 5,001 to 30,000 connections	Five
Tier 3 Over 30,000 connections	Ten

2. *Except as provided in paragraphs 4 and 5 of this subsection, a large municipal provider regulated under the NPCCP shall implement the best management practices required by paragraph 1 of this subsection as described by the provider in the provider's approved Provider Profile.*
3. *If the total number of service connections to the provider's water distribution system*

increases to a higher tier level as described in paragraph 1(b) of this subsection after the Director approves the provider's Provider Profile pursuant to subsection (B)(2) or (B)(3) of this section, the provider shall submit a new Provider Profile to the Director within sixty days after the provider becomes aware of the increase and shall include in the profile the information required by subsection (B)(1). The provisions in subsection (B)(2) and (B)(3) shall apply to the new Provider Profile when it is submitted to the Director. Until the new Provider Profile is approved by the Director, the provider shall continue implementing the best management practices described by the provider in its previously approved Provider Profile. Upon approval of the new Provider Profile by the Director, the provider shall implement all of the best management practices described in the newly approved Provider Profile.

- 4 A large municipal provider regulated under the NPCCP may discontinue implementing a best management practice identified in the provider's approved Provider Profile, other than the Basic Public Information Program required by paragraph (1)(a) of this subsection, and begin implementing a substitute best management practice if all of the following apply:*
 - a. The substitute conservation measure is a measure described on the list of additional best management practices set forth in Appendix 5C, or any modification of the list made pursuant to the modification procedure described in Appendix 5C as posted on ADWR's website.*
 - b. The provider determines that the substitute best management practice is reasonably relevant to the provider's existing service area characteristics or water use patterns.*
- 5. If a large municipal provider regulated under the NPCCP implements a substitute best management practice pursuant to paragraph 4 of this subsection, the provider may discontinue implementing that substitute best management practice and begin implementing a new substitute best management practice if all of the following apply:*
 - a. The new substitute conservation measure is a measure described on the list of additional best management practices set forth in Appendix 5C, or any modification of the list made pursuant to the modification procedure described in Appendix 5C as posted on ADWR's website.*
 - b. The provider determines that the new substitute best management practice is reasonably relevant to the provider's existing service area characteristics or water use patterns.*
- 6. If a provider substitutes a best management practice pursuant to paragraph 4 or 5 of this subsection, both of the following shall apply:*
 - a. The provider shall notify the Director of the substitution in the CER filed by the provider for the year in which the substitution occurred, as provided in subsection (E)(4) of this section.*
 - b. If the Director determines that the substitute best management practice is not reasonably relevant to the provider's existing service area characteristics or water use*

patterns, the Director shall give written notice of that determination to the provider and the provider shall begin implementing the discontinued best management practice or a substitute best management practice from the list of additional best management practices set forth in Appendix 5C, or any modification of the list made pursuant to the modification procedure described in Appendix 5C as posted on ADWR's website, that the Director determines is reasonably relevant to the provider's existing service area characteristics or water use patterns. The Director's determination is an appealable agency action pursuant to Title 41, Chapter 6, Article 10.

E. Conservation Efforts Report (CER)

In addition to any information required by section 5-612, a large municipal provider regulated under the NPCCP shall include with its annual reports required by A.R.S. § 45-632 a CER containing the following information:

- 1. A description of each best management practice implemented during the previous year and the results (i.e., what was accomplished).*
- 2. An assessment of each best management practice implemented as to what worked and what needs modification.*
- 3. The provider's plan for implementation of best management practices during the current year.*
- 4. If the provider substituted a best management practice pursuant to subsection (D)(4) or (D)(5) of this section during the reporting year, a description of the best management practice that was discontinued, a description of the substitute and an explanation of how the substitute is relevant to the provider's existing service area characteristics or water use patterns.*

F. Water Rate Structure

A large municipal provider regulated under the NPCCP shall include in its annual reports filed pursuant to A.R.S. § 45-632 a copy of the provider's current water rate structure unless no changes have been made to the rate structure since it was last submitted to the Director.

G. Records Retention

For at least five years after a year in which a large municipal provider is regulated under the Non-Per Capita Conservation Program, the provider shall keep and maintain the following records:

- 1. Accurate records verifying that the provider implemented the best management practices that it was required to implement during that year.*
- 2. Accurate records of the provider's water use during the year.*

5-606. Consolidation of Municipal Provider Service Areas; Acquisition of a Portion of Another Municipal Provider's Service Area**A. Notification**

1. *If two or more municipal providers consolidate their service areas into one service area, the consolidated provider shall notify ADWR of the consolidation within 30 days after the consolidation becomes effective.*
2. *If a municipal provider acquires a portion of another municipal provider's existing service area, both the acquiring provider and the conveying provider shall notify ADWR of the acquisition within 30 days after the acquisition becomes effective.*

B. Regulation of Consolidated Provider

1. *Upon consolidation, a consolidated provider that qualifies as a large municipal provider and that is designated as having an assured water supply shall be regulated under the Total GPCD Program described in section 5-603, unless the consolidated provider elects to be regulated under the Non-Per Capita Conservation Program described in section 5-605 as provided in section 5-605(A)(2)(a).*
2. *If the consolidated provider is designated as having an assured water supply and is regulated under the Total GPCD Program, the Director shall establish a total GPCD requirement for the consolidated provider consistent with the methodology used by the Director to establish the consolidating providers' total GPCD requirements as set forth in Appendix 5A. The Director shall also establish and maintain a flexibility account for the consolidated provider in accordance with section 5-604(A) with a beginning balance to be established by the Director based on the ending balances in the flexibility accounts of the consolidating providers.*
3. *If the consolidated provider qualifies as a large municipal provider and is not designated as having an assured water supply, the consolidated provider shall submit to the Director a Provider Profile pursuant to section 5-605(B) within 60 days after the consolidation becomes effective. The consolidated provider shall be regulated under the NPCCP described in section 5-605 beginning on the date the Director approves the Provider Profile.*

C. Regulation of Acquiring Provider

1. *Except as provided in paragraph 2 of this subsection, a large municipal provider that acquires a portion of another provider's existing service area shall continue to be regulated under the conservation program that the acquiring provider was regulated under immediately prior to the acquisition.*
2. *If the acquiring provider is not designated as having an assured water supply after the acquisition, or if the acquiring provider was regulated under the NPCCP immediately prior to the acquisition, both of the following shall apply:*

- a. *The acquiring provider shall be regulated under the NPCCP after the conveyance. If the acquiring provider becomes designated as having an assured water supply after the acquisition, the provider may elect to be regulated under the Total GPCD Program described in section 5-603 by providing the Director with written notice of the election as provided in Section 5-602(D).*
- b. *If the acquiring provider was regulated under the NPCCP immediately prior to the acquisition, the following shall apply:*
 - 1) *If the total number of service connections to the provider's water distribution system increases to a higher tier level as described in section 5-605(D)(1)(b) as a result of the acquisition, the provider shall submit to the Director a new Provider Profile pursuant to section 5-605(B)(1) within 60 days after the acquisition.*
 - 2) *If the Director determines that the provider's service area characteristics or water use patterns have changed, the Director may require the provider to submit a new Provider Profile pursuant to section 5-605(B)(1).*
 - 3) *If the provider submits a new Provider Profile, section 5-605(B)(2) and (B)(3) shall apply to the new Provider Profile. The provider shall continue implementing the best management practices described by the provider in its previously approved Provider Profile until the Director approves the new Provider Profile. Upon the Director's approval of the new Provider Profile, the provider shall implement all of the best management practices described in the newly approved Provider Profile.*
3. *If the acquiring provider is regulated under the Total GPCD Program after the acquisition, the Director shall establish a new total GPCD requirement for the acquiring provider consistent with the methodology used to establish the provider's total GPCD requirement in Appendix 5A, taking into account the addition to the provider's service area. The Director may also adjust the balance in the acquiring provider's flexibility account maintained under section 5-604(A) to take into account the balance in the conveying provider's flexibility account at the time of the conveyance.*

D. Regulation of Conveying Provider

1. *Except as provided in paragraph 2 of this subsection, a large municipal provider that conveys a portion of its service area to another provider and that qualifies as a large municipal provider after the conveyance shall continue to be regulated under the conservation program that the provider was regulated under immediately prior to the conveyance.*
2. *If the conveying provider is not designated as having an assured water supply after the conveyance, or if the conveying provider was regulated under the NPCCP immediately prior to the conveyance, both of the following shall apply:*
 - a. *The conveying provider shall be regulated under the NPCCP after the conveyance. If the conveying provider becomes designated as having an assured water supply after the conveyance, the provider may elect to be regulated under the Total GPCD Program*

described in section 5-603 by providing the Director with written notice of the election as provided in Section 5-602(D).

b. If the conveying provider was regulated under the NPCCP immediately prior to the conveyance, the following shall apply:

1) If the total number of service connections to the provider's water distribution system decreases to a lower tier level as described in section 5-605(D)(1)(b) as a result of the conveyance, the provider shall submit to the Director a new Provider Profile pursuant to section 5-605(B)(1) within 60 days after the conveyance.

2) If the Director determines that the provider's service area characteristics or water use patterns have changed, the Director may require the provider to submit a new Provider Profile pursuant to section 5-605(B)(1).

3) If the provider submits a new Provider Profile, section 5-605(B)(2) and (B)(3) shall apply to the new Provider Profile. The provider shall continue implementing the best management practices described by the provider in its previously approved Provider Profile until the Director approves the new Provider Profile. Upon the Director's approval of the new Provider Profile, the provider shall implement all of the best management practices described in the newly approved Provider Profile.

3. If the conveying provider is regulated under the Total GPCD Program after the conveyance, the Director shall establish a new total GPCD requirement for the provider consistent with the methodology used to establish the total GPCD requirement in Appendix 5A, taking into account the reduction in the provider's service area. The Director may also adjust the balance in the conveying provider's flexibility account maintained under section 5-604 to take into account the reduction in the provider's service area.

5-607. Conservation Requirements for New Large Municipal Providers

A. Total GPCD Program

1. A new large municipal provider that is designated as having an assured water supply shall be assigned to the Total GPCD Program described in section 5-603 and shall comply with its annual total GPCD requirement beginning with the second full calendar year after the provider is given written notice of the requirement by the Director, and for each calendar year thereafter until the first compliance date for any substitute municipal conservation requirement in the 5MP.

2. A new large municipal provider's total GPCD requirement for a year shall be calculated by the Director using the methodology in Appendix 5A.

3. The Director shall determine if a new large municipal provider is in compliance with its total GPCD requirement pursuant to the flexibility account provisions in section 5-604.

B. Non-Per Capita Conservation Program

1. *A new large municipal provider that is not designated as having an assured water supply shall be regulated under the NPCCP in accordance with section 5-605. If the Director designates the provider as having an assured water supply while the provider is regulated under the NPCCP, the provider may elect to be regulated under the Total GPCD Program as provided in section 5-602(D).*
2. *A new large municipal provider that is designated as having an assured water supply may elect to be regulated under the Non-Per Capita Conservation Program in accordance with section 5-605.*

5-608. Conservation Requirements for Large Untreated Water Providers

A. Rate of Use Requirement

Beginning on January 1, 2020, and continuing thereafter until the first compliance date for any substitute requirement in the 5MP, a large untreated water provider shall not serve an amount of untreated water during a calendar year which exceeds an amount calculated as follows:

1. *Determine the number of gross acres of land to which the provider delivers untreated water during the calendar year. Gross acres do not include those acres regulated as a turf-related facility under section 5-610, subsection A, paragraph 1.*
2. *Multiply the number of gross acres determined in paragraph 1 of this subsection above by an average annual application rate of 4.0 ac-ft of untreated water per gross acre.*

B. Compliance

A large untreated water provider is in compliance with its rate of use requirement as set forth in subsection A of this section for a calendar year if one of the following applies:

1. *The amount of untreated water served by the provider during the calendar year does not exceed the amount of water calculated in subsection A of this section; or*
2. *The aggregate amount of untreated water served by the provider during that calendar year and the preceding two calendar years divided by three does not exceed the sum of the amount of untreated water calculated in subsection A of this section for those three years divided by three.*

5-609. Conservation Requirements for Small Municipal Providers

A. *By January 1, 2020, or upon commencement of service of water, whichever is later, and until the first compliance date for any substitute requirements in the 5MP, a small municipal provider shall adopt and implement a program to achieve the following goals:*

1. *Minimize waste of all water supplies.*
2. *Maximize efficiency in outdoor watering.*

3. *Encourage reuse of water supplies.*
4. *Increase overall water use efficiency as feasible.*

5-610. Individual User Requirements for Municipal Providers and Individual Users

A. Individual User Requirements

The municipal provider or individual user responsible for compliance with the individual user requirements under subsection B of this section shall comply with the following, as applicable:

1. *The municipal provider or individual user shall serve water to, or use water within, a turf-related facility only in accordance with sections 6-1601 through 6-1605 of the Industrial Chapter of the 4MP, and shall comply with the monitoring and reporting requirements set forth in sections 6-1503 and 6-1605 of the Industrial Chapter, as though the individual user were an industrial user. The person responsible for compliance shall also comply with the conservation requirements contained in section 6-1502 of the Industrial Chapter, if applicable, as though the individual user were an industrial user.*
2. *The municipal provider or individual user shall serve water to, or use water within, a large-scale cooling facility only if the person using water at the facility complies with all applicable conservation requirements and monitoring and reporting requirements contained in sections 6-2001 and 6-2002 of the Industrial Chapter of the 4MP as though the person was an industrial user. The person responsible for compliance shall also comply with the applicable monitoring and reporting requirements contained in sections 6-1503 and 6-2003 and the conservation requirements contained in section 6-1502 of the Industrial Chapter, if applicable, as though the individual user were an industrial user.*
3. *The municipal provider or individual user shall serve or use groundwater for the purpose of watering landscaping plants planted on or after January 1, 1987 within any publicly owned right-of-way of a highway, street, road, sidewalk, curb or shoulder which is used for travel in any ordinary mode, including pedestrian travel, only if the plants are listed in ADWR's Low Water Use/Drought Tolerant Plant List for the Pinal Active Management Area. The Director may waive this requirement upon request from the municipal provider or individual user if the municipal provider or individual user demonstrates to the satisfaction of the Director that plants listed in ADWR's Low Water Use/Drought Tolerant Plant List for the Pinal Active Management Area, cannot grow in the publicly owned right-of-way because of high elevation or low-light conditions, such as a freeway underpass. This requirement does not apply to any portion of a residential lot that extends into a publicly owned right-of-way.*
4. *The municipal provider or individual user shall not serve or use groundwater for the purpose of maintaining a water feature installed after January 1, 2002 within any publicly owned right-of-way of a highway, street, road, sidewalk, curb or shoulder which is used for travel in any ordinary mode, including pedestrian travel. This requirement does not apply to any portion of a residential lot that extends into a publicly owned right-of-way.*

B. Responsibility for Compliance with Individual User Requirements

1. *Beginning January 1, 2020 and continuing thereafter until the first compliance date for any substitute municipal conservation requirement in the 5MP, a municipal provider shall be responsible for complying with an individual user requirement set forth in subsection A of this section that is applicable to an existing individual user unless one of the following applies:*
 - a. *The provider identified the existing individual user to the Director on a form provided by ADWR and received by the Director no later than 90 days before the adoption of the 4MP.*
 - b. *The Director gave written notice of the individual user requirement to the individual user within 30 days after the adoption of the 4MP.*
 - c. *The municipal provider did not identify the existing individual user to the Director on a form provided by ADWR and received by the Director no later than 90 days before the adoption of the 4MP, and the Director gave written notice of the individual user requirement to the individual user more than 30 days after the adoption of the 4MP. If this subparagraph applies, the municipal provider shall comply with the individual user requirement applicable to the existing individual user beginning January 1, 2020 and continuing thereafter until the first date on which the individual user is required to comply with the requirement under paragraph 2 of this subsection.*
2. *An existing individual user that has been given written notice of an individual user requirement by the Director within 30 days after the adoption of the 4MP shall be responsible for complying with the individual user requirement beginning January 1, 2020 and continuing thereafter until the first compliance date of any substitute municipal conservation requirement in the 5MP. An existing individual user that is given written notice of an individual user requirement by the Director more than 30 days after adoption of the 4MP shall be responsible for complying with the individual user requirement beginning January 1 of the calendar year following the first full year after the date of the notice and continuing thereafter until the first compliance date of any substitute conservation requirement in the 5MP.*
3. *A municipal provider shall be responsible for complying with an individual user requirement set forth in subsection A of this section that is applicable to a new individual user beginning on the date the new individual user first receives water from the provider and continuing thereafter until the first compliance date for any substitute municipal conservation requirement in the 5MP, unless one of the following applies:*
 - a. *The municipal provider identifies the new individual user to the Director in writing on a form provided by the Director. If the provider identifies the new individual user to the Director within 90 days after the provider begins serving water to the new individual user, the municipal provider shall not be responsible for complying with the individual user requirement applicable to the new individual user at any time. If the provider identifies the new individual user to the Director more than 90 days after the provider begins serving water to the new individual user, the provider shall be responsible for complying with the individual user requirement beginning on the date the new individual user first receives water from the provider until the end of the calendar year in which the provider identifies the individual user to the Director.*

- b. The municipal provider does not identify the new individual user to the Director in writing on a form provided by the Director, within 90 days after the provider begins serving water to the new individual user, and the Director gives written notice of the individual user requirement to the individual user. If this subparagraph applies, the municipal provider shall comply with the individual user requirement for the new individual user beginning on the date the individual user first receives water from the provider and continuing thereafter until the first date on which the individual user is required to comply with the requirement under paragraph 4 of this subsection.*
- 4. A new individual user that is given written notice of an individual user requirement by the Director shall be responsible for complying with the individual user requirement beginning on the date specified in the notice.*

C. Notification of New Individual User by Municipal Provider

Beginning January 1, 2020, or upon commencement of service of water, whichever is later, and continuing thereafter until the first compliance date for any substitute municipal conservation requirement in the 5MP, a municipal provider shall notify a new individual user in writing of the applicable individual user requirements as set forth in subsection A of this section before commencement of service of water to the individual user.

5-611. Conservation Requirements for Municipal Distribution Systems

Beginning with calendar year 2020, or the calendar year in which the provider commences service of water, whichever is later, and for each calendar year thereafter until the first compliance date for any substitute distribution system requirement in the 5MP:

- 1. A large municipal provider shall not operate a groundwater distribution system in a manner such that lost and unaccounted for water (see Appendix B) exceeds 10 percent of the total quantity of water from any source that enters the provider's groundwater distribution system, as calculated on an annual or three-year average basis.*
- 2. A small municipal provider shall not operate its groundwater distribution system in a manner such that lost and unaccounted for water (see Appendix B) exceeds 15 percent of the total quantity of water from any source that enters the provider's groundwater distribution system, as calculated on an annual or three-year average basis.*
- 3. A large untreated water provider that operates an untreated water municipal distribution system shall either:*
 - a) Line all canals within its service area that are used to deliver untreated water to its delivery points with a material that allows no more lost water than a well-maintained concrete lining, and maintain such lining to minimize its lost and unaccounted for water; or*
 - b) Operate and maintain its untreated water municipal distribution system in a manner such that lost and unaccounted for water does not exceed 10 percent of the total*

quantity of untreated water from any source withdrawn, diverted or received by the provider for non-irrigation uses on an annual or three-year average basis.

5-612. Monitoring and Reporting Requirements for Municipal Providers and Individual Users

Beginning with calendar year 2020, or the calendar year in which the municipal provider commences service of water, whichever is later, and for each calendar year thereafter until the first compliance date for any substitute monitoring or reporting requirement in the 5MP:

- 1. A municipal provider, regardless of the conservation program under which the provider is regulated, shall report the following in its annual report required by A.R.S. § 45-632:*
 - a. The total quantity of water from any source, including reclaimed water, disaggregated by each source, withdrawn, diverted or received by the provider for non-irrigation use during the reporting year, as separately measured with a measuring device in accordance with paragraph 5 of this subsection.*
 - b. The total quantity of water from any source, including reclaimed water, withdrawn, diverted or received by the provider for irrigation use during the reporting year.*
 - c. The total quantity of reclaimed water, disaggregated by direct use reclaimed water, reclaimed water recovered from within the area of impact, and reclaimed water recovered outside the area of impact, served by the provider during the reporting year for non-irrigation use.*
 - d. The number of single family housing units added to the provider's service area from December 31 of the previous calendar year to December 31 of the reporting year.*
 - e. The number of multifamily housing units added to the provider's service area from December 31 of the previous calendar year to December 31 of the reporting year.*
 - f. The total number of single family housing units and multifamily housing units served by the provider as of December 31 of the previous year.*
 - g. The total quantity of water from any source, including reclaimed water which was delivered to be stored at an underground storage facility or groundwater savings facility, or recovered as annual or long-term storage credits.*
 - h. The total quantity of water ordered by the municipal provider from an irrigation district and released by the irrigation district from a storage or distribution facility but not accepted by the municipal provider or delivered to any other person.*
- 2. A large municipal provider shall separately measure and report in its annual reports required by A.R.S. §§ 45-468 and 45-632 for the calendar year, the total quantity of water from any source that enters its groundwater distribution system during the reporting year.*
- 3. A large municipal provider shall separately measure and report in its annual reports required by A.R.S. §§ 45-468 and 45-632 for the calendar year, the total quantity of water*

from any source delivered via its groundwater distribution system each month for: a) irrigation uses; b) residential uses by category, including single family and multifamily; and c) non-residential uses by category, including turf-related facility uses, commercial uses, industrial uses, government uses, construction uses and other uses.

4. *In addition to the information required by paragraphs 1 and 2 of this section, a large municipal provider regulated under the Non-Per Capita Conservation Program described in section 5-605 shall include the following in its annual report required by A.R.S. § 45-632:*
 - a. *A CER as prescribed by section 5-605(E).*
 - b. *The total number of connections to the provider's water distribution system as of the end of the reporting year, including residential and non-residential connections.*
5. *A large municipal provider shall meter water deliveries to all service connections on its municipal distribution system, except connections to fire services, dwelling units in individual multifamily units, mobile homes in a mobile home park with a master meter, and construction users.*
6. *A municipal provider shall make all water use measurements using measuring devices in accordance with ADWR's measuring device rules, R12-15-901, et seq., Arizona Administrative Code.*
7. *An individual user shall comply with the monitoring and reporting requirements prescribed in section 5-609(A).*

5-613. Remedial Groundwater Accounting for Conservation Requirements

- A. **Accounting**
Remedial groundwater used by a person subject to a conservation requirement established under this chapter shall be accounted for consistent with the accounting for surface water for purposes of determining the person's compliance with the conservation requirement, subject to the provisions of subsections B through D of this section.

B. **Amount of Groundwater Eligible for Accounting**

For each approved remedial action project, the annual amount of groundwater that is eligible for the remedial groundwater accounting provided in subsection A of this section is the project's annual authorized volume. The annual authorized volume for a remedial action project approved on or after June 15, 1999 is the maximum annual volume of groundwater that may be withdrawn pursuant to the project, as specified in a consent decree or other document approved by the United States Environmental Protection Agency (EPA) or the Arizona Department of Environmental Quality (ADEQ). The annual authorized volume for a project approved prior to June 15, 1999 is the highest annual use of groundwater withdrawn pursuant to the project prior to January 1, 1999, except that if a consent decree or other document approved by the EPA or ADEQ specifies the maximum annual volume of groundwater that may be withdrawn pursuant to the project, the project's annual authorized volume is the maximum

annual volume of groundwater specified in that document. The Director may modify the annual authorized volume for a remedial action project as follows:

- 1. For an approved remedial action project associated with a treatment plant that was in operation prior to June 15, 1999, a person may request an increase in the annual authorized volume at the same time the notice is submitted pursuant to subsection C of this section. The Director shall increase the annual authorized volume up to the maximum treatment capacity of the treatment plant if adequate documentation is submitted to the Director demonstrating that an increase is necessary to further the purpose of the remedial action project and the increase is not in violation of the consent decree or other document approved by the EPA or ADEQ.*
- 2. A person may request an increase in the annual authorized volume of an approved remedial action project at any time if it is necessary to withdraw groundwater in excess of the annual authorized volume to further the purpose of the project. The Director shall increase the annual authorized volume up to the maximum volume needed to further the purpose of the project if adequate documentation justifying the increase is submitted to the Director and the increase is not in violation of the consent decree or other document approved by the EPA or ADEQ.*
- 3. The Director shall modify the annual authorized volume of an approved remedial action project to conform to any change in the consent decree or other document approved by the EPA or ADEQ if the person desiring the modification gives the Director written notice of the change within thirty days after the change. The notice shall include a copy of the legally binding agreement changing the consent decree or other document approved by the EPA or ADEQ.*

C. Notification

To qualify for the remedial groundwater accounting provided in subsection A of this section, the person desiring the accounting must notify the Director in writing of the anticipated withdrawal of Remedial Groundwater pursuant to an approved remedial action project under CERCLA or Title 49, Arizona Revised Statutes, prior to the withdrawal. A municipal provider may submit notice on behalf of an individual user. At the time the notice is given, the person desiring the accounting must be using Remedial Groundwater pursuant to the approved remedial action project or must have agreed to do so through a consent decree or other document approved by the EPA or ADEQ. The notice required by this subsection shall include all of the following:

- 1. A copy of a document approved by ADEQ or the EPA, such as the Remedial Action Plan (RAP), Record of Decision (ROD) or consent decree, authorizing the remediated groundwater project. Unless expressly specified in the document, the person shall include in the notice the volume of Remedial Groundwater that will be pumped annually pursuant to the project, the time period to which the document applies, and the annual authorized volume of Remedial Groundwater that may be withdrawn pursuant to the project.*
- 2. The purpose for which the Remedial Groundwater will be used.*
- 3. The name and telephone number of a contact person.*

4. *Any other information required by the Director.*

D. Monitoring and Reporting Requirements

To qualify for the remedial groundwater accounting for conservation requirements as provided in subsection A of this section, Remedial Groundwater withdrawn pursuant to the approved remedial action project must be metered separately from groundwater withdrawn in association with another groundwater withdrawal authority for the same or other end use. A person desiring the remedial groundwater accounting for conservation requirements shall indicate in its annual report under A.R.S. § 45-632 the volume of groundwater withdrawn and used during the previous calendar year that qualifies for the accounting.

APPENDIX 5A
METHODOLOGY FOR CALCULATING TOTAL GPCD REQUIREMENTS FOR
LARGE MUNICIPAL PROVIDERS

The total GPCD requirement for a large municipal provider for the fourth management period shall be the provider's median total GPCD for the period 2000-2009 minus one standard deviation. However, if the median total GPCD minus one standard deviation is less than the provider's minimum total GPCD requirement, the provider's total GPCD requirement shall be the minimum total GPCD requirement. Further, if the median total GPCD minus one standard deviation is greater than the provider's final GPCD requirement in the last effective year of the 3MP, the provider's total GPCD requirement shall be the 3MP final GPCD requirement. The minimum total GPCD requirement shall be calculated as follows:

- 1. Divide 119 gallons per housing unit per day by the 2010 US Census persons per household for the provider's service area, and add 40 GPCD to that figure,*
- 2. Add to the result from paragraph 1 above the provider's 3MP non-residential component target. If the provider is a new large municipal provider, the non-residential component target is the lesser of:*
 - a. The provider's 2010 non-residential GPCD rate or*
 - b. 21 GPCD.*
- 3. Multiply the result from paragraph 2 above by the 2010 US Census population for the provider's service area,*
- 4. Multiply the result from paragraph 3 above by 365 days in a year,*
- 5. Divide the result from paragraph 4 above 0.9,*
- 6. Divide the result paragraph 5 above by 365 days in a year,*
- 7. Divide the result from paragraph 6 above by the 2010 US Census population for the provider's service area.*

APPENDIX 5A, CONT'D
METHODOLOGY FOR CALCULATING TOTAL GPCD REQUIREMENTS FOR
LARGE MUNICIPAL PROVIDERS

Table 5A below shows the total GPCD requirement calculated for each large municipal provider that was designated as having an assured water supply when the 4MP was adopted. A large municipal provider listed in Table 5A must comply with its assigned total GPCD requirement (far right column) beginning January 1, 2020 and continuing until the effective date of any substitute requirement in the 5MP, unless the provider elects to be regulated under the NPCCP.

TABLE 5A
GPCD REQUIREMENT FOR LARGE MUNICIPAL PROVIDERS

Provider	2000-2009 Median Total GPCD	Median Minus One Standard Deviation	Minimum Total GPCD Requirement	Maximum Total GPCD Requirement	Assigned Total GPCD Requirement
City of Eloy	182	166	167	214	167
Town of Florence	166	148	169	202	169
Santa Cruz Water Company	146	130	119	148	130
Johnson Utilities - Pinal	289	234	139	174	174

APPENDIX 5B
LOST & UNACCOUNTED FOR WATER AND ALLOWABLE ESTIMATED USES

Lost & Unaccounted For Water Includes:***Leaks:***

Distribution Lines
Sewer Lines
Storage Tanks
Storage Ponds
Hydrants
Other

Breaks:

Distribution Lines
Sewer Lines
Mains
Hydrants
Other

Measurement Errors:

Meter Under-Registration
Source Meter Errors
Flumes/Weirs Errors

Evaporation***Illegal Connections/Water Theft******Phreatophyte Uses*****Water System Uses Include:**

Residential Metered Deliveries
Non-Residential Metered Deliveries
Standpipe Uses

- (1) Fire Flow*
- (1) Hydrant Meter Reading*
- (1) Hydrant Flow Tests*
- (1) Fire Sprinkler System Flow Tests*
- (1) Construction*
- (1) Dust Control*
- (1) Line Flushing (distribution, sewer, or treatment facility)*
- (1) Street Cleaning*
- (1) Storm Drain Flushing*
- (1) Water Tests & Pressure Tests*
- (1) Well Purging*

- (1) Estimates can be provided, using a method approved by the Director. Documentation must be submitted with annual report.*

APPENDIX 5C
NON-PER CAPITA CONSERVATION PROGRAM
BEST MANAGEMENT PRACTICES

Introduction

A large municipal water provider regulated under the Non-per Capita Conservation Program (NPCCP) must implement a basic public information program and one or more additional water conservation best management practices. A best management practice (BMP) is a measure that results in reduced water consumption or increased water use efficiency. The number of BMPs that a water provider must implement is based on the provider's size as defined by its total number of water service connections. The provider must select the additional BMPs from Section II below.

At any time while regulated under the NPCCP, a provider may choose to discontinue implementation of a selected BMP (other than the required public information program) and implement a substitute BMP instead. The substitute BMP must be on the list of approved BMPs in Section II of this appendix, and the provider must determine that the substitute BMP is reasonably relevant to its existing service area characteristics or water use patterns. A provider that substitutes a BMP must notify the Director of the substitution in its next Conservation Efforts Report (CER).

The Director may modify the list to include additional BMPs pursuant to the procedure set forth in Section III of this appendix. A copy of the most recent list of additional BMPs shall be posted on the ADWR's website and shall be on file with ADWR.

I. Basic Public Information Program (formerly called "public education program")

All large municipal providers regulated under the NPCCP are required to implement a basic public information program that includes the following components:

- 1. At least twice a year, the water provider shall communicate to customers the importance of water conservation and notify them of the water conservation materials and programs available from the provider and how they may obtain the materials or more information. Channels through which this information is communicated to customers shall include one or more of the following: water bill inserts messages on water bills, provider website, post cards, newsletters or print pieces.*
- 2. The water provider shall make available to customers free written information on water conservation (e.g. pamphlets, brochures, fact sheets, etc.). The information shall be available in the provider's office, sent to customers on request or provided online for customers who prefer this method. The provider is encouraged to distribute water conservation information at other locations (e.g., libraries, chamber of commerce, town hall, etc.) and on their websites.*

II. Additional Best Management Practices (BMPs)**Category 1: Public Awareness/Public Relations**

Programs in this category are designed to increase awareness of the need for and importance of water conservation, to inform customers about the availability of conservation resources and services, and to encourage the public to reduce their water consumption.

1.1 Local or Regional Conservation Campaign

The water provider actively participates in an advertising or social marketing campaign to raise awareness of the need for water conservation and to encourage the efficient use of water. The campaign must reach local or regional customers using methods such as traditional media (television, radio or print), websites, social media and promotional materials (e.g., brochures, vehicle wraps, bookmarks, magnets, etc.). A provider that implements multiple campaigns may be eligible to receive credit for more than one BMP if the campaigns can be shown to be separate and distinct from one another. The provider must submit documentation with its CER that describes the campaign and results.

1.2 Special Events/Programs and Community Presentations

The water provider provides speakers, conducts tours for the public, or participates in community events to display, provide or present information about water conservation and inform the public about the programs and resources. To receive credit for this measure, a provider must participate in at least three events per year and describe them in the CER.

1.3 Market Surveys to Identify Customer Information Needs or Assess the Success of Conservation Messages

The water provider conducts a market survey to be used to improve the water provider's current water conservation activities or to plan future activities. The survey is designed to gather data regarding customers' information needs, program preferences or responses to conservation messages. The provider must submit documentation with its CER stating the objectives of the survey, data collection methods, analysis of results and how the results were communicated.

Credit for this BMP is limited to only one year. In subsequent years, the provider must replace this BMP with another BMP from categories 1 through 7 that is appropriate for its service area.

1.4 Distribution Plan for Water Conservation Materials

The water provider develops and implements a two-year distribution plan to effectively market its water conservation materials and programs. The provider must submit documentation with its CER that describes the following:

- the goals and objectives for the distribution of materials over a two-year period, beginning the year following plan development*
- a description of the conservation materials to be distributed*
- how the materials will be distributed (libraries, landscape architects, nurseries, realtors, master gardeners, etc.)*
- how the materials or programs will be marketed (water bill inserts, on-hold phone messages, e-mail messages, public events, workshops, websites, local publications, etc.)*
- a timetable for distribution; and*
- a mechanism for tracking the distribution of materials.*

Credit for this BMP is limited to only one year. In subsequent years, the provider must replace this BMP with another BMP from categories 1 through 7 that is appropriate for its service area.

Category 2: Conservation Education and Training

Programs in this category are designed to provide customers with the knowledge and skills they need to utilize water efficiently and reduce consumption.

2.1 Adult Education or Training Program

The water provider implements an education or training program for adults within the provider's service

area that includes active personal participation. Examples include regularly scheduled workshops for homeowners or training programs for landscape professionals or non-residential water users. A provider that implements multiple adult programs may be eligible to receive credit for more than one BMP if the programs can be shown to be separate and distinct from one another.

2.2 Youth Education Program

The water provider works with schools in its service area to provide or support programming that increases students' understanding of water resources and promotes water conservation. Examples of youth education programs include teacher trainings, classroom presentations, educational materials, assembly programs, water festivals and guided field trips to water facilities. A provider that implements multiple youth programs may be eligible to receive credit for more than one BMP if the programs can be shown to be separate and distinct from one another.

2.3 New Homeowner Landscape Information

The water provider distributes low water- use landscape information packets to all owners of newly constructed homes, either through direct distribution (mail or delivery), delivery by the home builder, or online distribution if requested by the homeowner. The provider also notifies all new owners of existing homes (resale) that information on low water use landscaping is available and must provide such information on request. The number of notifications sent and packets mailed must be recorded and noted in the provider's CER.

2.4 Xeriscape Demonstration Garden

The water provider installs and maintains a low water use or water-efficient demonstration garden. The garden must be available to the public and include interpretive signage or literature about low water use plants or water-efficient landscape practices.

Category 3: Outreach Services

Programs in this category are designed to provide customers with consultations, audits or retrofits designed to conserve water or improve water use efficiency.

3.1 Residential Audit Program

The water provider offers an audit program to all residential customers within the provider's service area. The audit can be either a self-audit (provider offers self-audit kits) or conducted by the provider or designated representative. The audit may include indoor components (e.g., toilets, faucets, showerheads, etc.) and outdoor components (e.g., irrigation system, pool, water feature, etc.) or both. Audits conducted by the provider may include a meter check and instructions on how to read the meter and use it to determine if there is a leak. Self-audit kits shall include written instructions on how to conduct an audit and how to read the meter and use it to determine if there is a leak. The number of audits or self-audit kits provided must be recorded and noted in the provider's CER.

3.2 Landscape Consultations (Residential or Non-Residential)

The water provider or a designated representative offers landscape consultation services to residential or non-residential customers located in those portions of the provider's service area with the greatest potential for savings. Examples of services include an evaluation of the irrigation system, controller, plant selection and turf conversion possibilities, as well as providing information about other related services or programs (e.g. rebates, educational materials, workshops). The consultation may include a meter check and instructions on how to read the meter and use it to determine if there is a leak. The individual providing the consultation shall provide either on-site written or verbal suggestions, and provide a follow-up visit or

interview. Landscape consultations must be recorded and noted in the provider's CER.

3.3 Water Budgeting Program

The water provider offers assistance in developing a monthly or annual water budget to one or more non-residential water user groups (e.g., homeowner associations, industries, commercial properties, government facilities, parks, schools, etc.) or to apartment complexes. The water budget shall establish target amounts for outdoor or indoor water use that reflect efficient water use/application rates. These rates should meet or exceed water use efficiencies required for similar uses as described in the Third Management Plan. If they are not addressed in the plan, water use rates should be commensurate with state of the art water efficiency standards found elsewhere in the body of water conservation literature. Descriptions of the water-budgeting assistance provided must be recorded and noted in the provider's CER.

3.4 Residential Interior Retrofit Programs

The water provider offers free or low cost plumbing fixtures or retrofits (e.g., faucet aerators, low-flow showerheads, toilets, toilet dams, etc.) to residential customers living in homes built prior to 1990 that have not been updated to today's water efficiency standards. The provider must offer the program to all residential customers meeting the above criteria unless the provider can demonstrate that targeting certain portions of its water service area is likely to yield the highest participation or potential water savings. The provider must select appropriate communication channels to advertise the program, and must keep a record of the number of retrofits provided and report this information in the CER.

3.5 Non-Residential Interior Retrofit Programs

The water provider offers free or low cost plumbing fixtures or fixture retrofits (e.g., faucets, faucet aerators, low flow showerheads, toilets, urinals, toilet dams, etc.) to non-residential customers with facilities built prior to 1990 that have not been updated to today's water efficiency standards. The provider must offer the program to all non-residential customers meeting the above criteria unless the provider can demonstrate that targeting certain portions of its water service area is likely to yield the highest participation or potential water savings. The provider must select appropriate communication channels to advertise the program, and must keep a record of the number of retrofits provided and report this information in the CER.

3.6 Customer High Water Use Inquiry Resolution

The water provider designs and implements a program to assist customers who inquire about their water bill increase or high water use. The program may include a site inspection to discover the cause of a water bill increase and a meter check to inform the customer on how to read the meter and check for leaks. The provider must follow-up on every customer inquiry, keep a record of inquiries and the type of assistance provided, and report this information in the CER.

3.7 Customer High Water Use Notification

The water provider develops a program to identify customers with high water use and contact them by telephone, email, door hanger, mail or in person. The notification must include information on provider services that could benefit the customer, such as audits, educational materials, or rebate programs. The type of notification and the criteria used for determining which customers are advised must be recorded and noted in the provider's CER.

3.8 Water Waste Investigations and Information

The water provider designs and implements a program to investigate water waste complaints and assist citizens in preventing water waste. An investigation would typically include a site inspection and some type of follow-up action, such as customer education to prevent water waste and a letter explaining enforcement (if applicable). The provider must follow-up on every water waste complaint, keep a record of complaints and follow-up activities, and report this information in the CER.

Category 4: Physical System Evaluation and Improvement

These programs ensure that the water system is being well-maintained and is running at optimal efficiency or will become more water efficient as a result of one or more physical water system improvements.

4.1 Leak Detection Program

The water provider implements a systematic evaluation of its water distribution system to identify and fix leaks. The provider must implement this program throughout its service area unless the provider can demonstrate that targeting certain portions of its water service area is likely to yield the highest water savings potential. A description of the program and its results must be noted in the provider's CER.

4.2 Meter Repair or Replacement Program

The water provider implements a program to systematically assess the meters or submeters in its water service area to identify malfunctioning meters and to repair or replace them. A description of the program and each year's results must be noted in the provider's CER.

4.3 Comprehensive Water System Audit Program

The water provider conducts a systematic audit of its water distribution system, systems control equipment, and water records to identify and quantify water losses, and develops a plan for corrective measures. The audit can be a precursor to a leak detection program or meter repair/replacement program. The provider must submit documentation with its CER that describes the audit, its objectives, methods and results. Credit for this BMP is limited to only one year unless the provider can provide justification for an ongoing or multi-year program. In subsequent years, the provider must replace this BMP with another BMP from categories 1 through 7 that is appropriate for its service area.

Category 5: Ordinances / Conditions of Service / Tariffs

Programs in this category are designed to reduce water use within the service area by limiting or reducing water used for specific purposes. Ordinances apply to cities and towns, and tariffs apply to private water companies regulated by the Arizona Corporation Commission. A water provider that is not part of a municipality can receive credit if it works with local or county jurisdictions to implement a new ordinance.

Note: BMPs that are part of curtailment tariffs for private water utilities do not qualify for the NPCCP because they are only implemented as a response to water shortage or potential water shortage, and do not apply at all times.

5.1 Low Water Use Landscaping Requirements

Single-family, multi-family, non-residential facilities or common areas are either required to include low-water use landscapes in all or part of their property or have limitations on water-intensive landscaping or turf.

5.2 Water Tampering / Water Waste Ordinances.

Water waste or water tampering are prohibited on residential or non-residential properties.

5.3 Plumbing Requirements Stricter than Current Arizona Code.

Plumbing requirements for new residential or non-residential properties are stricter than those currently in the Arizona code or include restrictions not currently in the Arizona code.

5.4 Limitations on Water Features (fountains, waterfalls, ponds and other artificial water structures).

Residential or non-residential properties have limitations on or water conservation requirements for water features.

5.5 Requirement for Water-efficient Landscapes in Model Homes

Landscaping at model homes in new residential developments is required to be water-efficient, is limited as to the size of water-intensive landscaped areas, or requires water-intensive landscaping to be used for functional areas only.

5.6 Requirements for Graywater or Rainwater Systems

Residential or non-residential facilities are required to have on-site plumbing or systems for collecting and utilizing graywater or rainwater.

5.7 Conservation Requirements for Car Washes

Commercial car washes are required to recycle water and to implement additional measures to increase water use efficiency and reduce water consumption. Examples of additional measures include using low flow nozzles, repairing leaks, watering landscape with reclaimed water, installing low water use landscapes or using automatic shut-off valves on hoses and faucets.

5.8 Landscape Watering Restrictions

The watering of landscapes is restricted to certain times of day. (This may be seasonal.)

5.9 Requirements for Water-efficient Hot Water Devices or Systems

Water-efficient plumbing design, “on-demand” hot water recirculation devices or other devices or designs for providing hot water efficiently are required in new residential and/or non-residential buildings.

5.10 Retrofit on Resale

Owners of single-family homes, multi-family home complexes or non-residential facilities are required to replace or retrofit all indoor plumbing fixtures (e.g., toilets, showerheads, faucets) that do not conform to current water efficiency standards. This could be implemented by the seller prior to sale or by the buyer subsequent to the sale.

5.11 Landscape Water Use Efficiency Standards for Non-residential Customers

New or rehabilitated non-residential facility landscaping of a particular size is required to meet specified standards for maximum water allowance, plant selection, irrigation design, grading or other components that result in improved landscape water use efficiency.

5.12 Requiring a Water Use Plan for Non-residential Users

All new commercial, industrial, and institutional customers with projected annual water use of 10 ac-ft or more per year are required to submit a water use plan that identifies all anticipated water uses by the customer and the water efficiency measures associated with the uses. The water use plan must include at least three of the following:

- 1. Statement of water efficiency policy.*
- 2. Water conservation education/training for employees.*

3. *Identification of on-site recycling and reuse strategies.*
4. *Total cooling capacity and operating total dissolved solids or conductivity for cooling towers.*
5. *Identification of best available technologies used for process, cooling, and domestic water uses.*
6. *Landscape watering system distribution uniformity and landscape water budget.*
7. *Total annual water budget for the facility.*

Category 6: Rebates/Incentives

Programs in this category are designed to provide users with an incentive for implementing a water conservation practice. The program can include rebates or other incentives such as grants, fee reductions or waivers.

1. Residential

6.1 Toilet Rebate Program for High Water Use Toilets

The water provider offers a financial rebate or incentive for the replacement of a high water- use toilet with a toilet that uses less than 1.6 gallons of water per flush. This incentive shall be offered to all owners of single-family or multi-family homes in its service area that were constructed prior to 1990 and have not been updated to today's water efficiency standards. A description of the program and its results must be noted in the provider's CER.

6.2 Rebate Program for Toilet that meets or exceeds the U.S. Environmental Protection Agency WaterSense Standards

The water provider offers a financial rebate or incentive to all owners of single-family or multi-family homes in its service area to replace a toilet with one that is more water-efficient and meets or exceeds the U.S. Environmental Protection Agency WaterSense standards. A description of the program and its results must be noted in the provider's CER.

6.3 Toilet Replacement Program

The water provider implements a program to replace toilets with ones that are more efficient and use 1.6 gallons of water per flush or less in single-family or multi-family homes in its service area. A description of the program and its results must be noted in the provider's CER.

6.4 Water Fixture Replacement/Rebate/Incentive Program for Older Homes

The water provider shall offer to replace fixtures (e.g., showerheads, aerators, toilet flappers) or provide a financial rebate or incentive for homeowners to replace fixtures in all single-family or multi-family homes within its service area constructed prior to 1990 that have not been updated to today's water efficiency standards. A description of the program and its results must be noted in the provider's CER.

6.5 Rebate for Water-efficient Hot Water Devices or Systems

The water provider shall offer a financial rebate or incentive to single-family or multi-family customers for water-efficient plumbing design, "on-demand" hot water recirculation devices, or other devices or designs for providing hot water efficiently. A description of the program and its results must be noted in the provider's CER.

6.6 Water- Efficient Appliance or Fixture Rebate/Incentive Program

The water provider shall offer customers a financial rebate or incentive for the purchase and installation

of water efficient appliances or fixtures. A description of the program and its results must be noted in the provider's CER.

6.7 Graywater Retrofit Rebate or Other Incentive

The water provider offers customers a financial rebate or other incentive for the installation of graywater systems, fixtures, or retrofits along with related educational material that includes information on the benefits of using graywater. A description of the program and its results must be noted in the provider's CER.

6.8 Rainwater Harvesting Retrofit Rebate or Incentive

The water provider offers customers a financial rebate or incentive for the installation of active or passive rainwater harvesting systems (e.g. gutters, downspouts, landscape designs, containers, etc.) along with information about water harvesting techniques. A description of the program and its results must be noted in the provider's CER.

6.9 Landscape Conversion Rebate or Incentive

The water provider offers customers a financial rebate or other incentive for the conversion of landscape to reduce water usage. Examples include replacing turf with xeriscape or converting a high water use landscape to a low water use landscape. Educational information about landscape conversions must be provided to customers. A description of the program and its results must be noted in the provider's CER.

6.10 Rebate or Incentive for Installing Xeriscapes in New Landscapes

The water provider offers customers installing new landscapes a financial rebate or incentive for installing a xeriscape landscape. A description of the program and its results must be noted in the provider's CER.

2. Non-residential

6.11 Commercial and Industrial Rebate or Incentive Program

The water provider identifies commercial and industrial customers with the highest conservation potential and implements a water conservation program for those customers. The program may include rebates, replacements, retrofits, audits, incentives and grants. A description of the program and its results must be noted in the provider's CER.

6.12 Large Landscape Conservation Program

The water provider implements a program to provide non-residential customers with support and incentives to improve their landscape water use efficiency. A description of the program and its results must be noted in the provider's CER.

6.13 No or Low Interest Loans for Implementing Water Conservation Measures

The water provider offers assistance to customers wishing to invest in projects intended to reduce existing water use or bring new uses in at high efficiency rates. A description of the program and its results must be noted in the provider's CER.

Category 7: Research/Innovation Program

Programs in this category are designed to encourage water providers to conduct systematic evaluations of conservation measures already implemented, to implement state of the art water conservation technologies and techniques, or to develop or try new technologies and techniques.

7.1 Implementation of an Emerging Technology

The provider implements an emerging technology that is designed to improve water efficiency or result in water savings. The provider must submit with its CER documentation that includes a description of the technology, any available information on water savings, a description of how the technology was implemented within the provider's service area and the results. This documentation shall be made available for public distribution.

7.2 Applied Research to Enhance Decision Making

The provider conducts or provides support for projects that will enhance their conservation program decision making and development (e.g., an analysis of certain water users in their service area). The provider must submit with its CER documentation that describes the research objectives, methods, results and the provider's involvement and method of support. This documentation shall be made available for public distribution. Credit for this BMP is limited to only one year unless the provider can offer justification for an ongoing or multi-year program. In subsequent years, the provider must replace this BMP with another BMP from categories 1 through 7 that is appropriate for its service area.

7.3 Evaluation of New or Emerging Technologies and Practices

The provider conducts or provides support for an evaluation of a new or emerging technology or practice designed to reduce water use or improve water use efficiency. The provider must submit documentation with its CER stating the objectives of the evaluation, methods used to conduct the evaluation, a description of the provider's participation, and results of the investigation. This documentation shall be made available for public distribution. Credit for this BMP is limited to only one year unless the provider can offer justification for an ongoing or multi-year program. In subsequent years, the provider must replace this BMP with another BMP from categories 1 through 7 that is appropriate for its service area.

7.4 Analyzing a Best Management Practice (BMP) for Actual Water Savings

The provider conducts a quantitative analysis of a BMP that yields results regarding actual water savings. The provider must submit documentation with its CER stating the objectives, methods used to conduct the analysis and the results of the investigation. This documentation shall also be made available for public distribution. Credit for this BMP is limited to only one year unless the provider can offer justification for an ongoing or multi-year program. In subsequent years, the provider must replace this BMP with another BMP from categories 1 through 7 that is appropriate for its service area.

7.5 Implementation of Smart Irrigation Technology

The provider installs smart irrigation technology and submits documentation with its CER describing the project location, implementation methods and estimates of irrigation efficiency.

7.6 Participation in Industry or Regional Partnerships for Water Conservation

The provider contributes financial support or in-kind services and actively participates in an industry or regional partnership that implements a collaborative program designed to increase water use efficiency or reduce water consumption. The provider must describe the partnership, program objectives, ongoing and future efforts, and submit the information in its CER.

7.7 Development of New Conservation Technologies and Products

The provider contributes financial support or in-kind services for the research and development of new conservation technologies or products. The provider must describe its involvement/participation and method(s) of support, research objectives, methods, and results in its CER. Credit for this BMP is limited to only one year unless the provider can offer justification for an ongoing or multi-year program. In

subsequent years, the provider must replace this BMP with another BMP from categories 1 through 7 that is appropriate for its service area.

7.8 Piloting a New Initiative, Program, or Best Management Practice

The provider implements a new initiative, program or potential new best management practice designed to improve water use efficiency or reduce water consumption. The provider must submit documentation with its CER that includes a description of the project or program, how it was implemented within the provider's service area, and the results. Credit for this BMP is limited to only one year unless the provider can offer justification for an ongoing or multi-year program. In subsequent years, the provider must replace this BMP with another BMP from categories 1 through 7 that is appropriate for its service area.

III. Procedure for Adding a Best Management Practice to the List of Additional Best Management Practices

- 1. A large municipal provider may apply to the Director to add a best management practice to the list of additional best management practices set forth in Section II of this Appendix.*
- 2. Upon receipt of an application submitted pursuant to paragraph 1 above, the Director shall review the application and may request additional information from the applicant. The Director may seek information from other sources as deemed necessary to determine if the best management practice should be added to the list.*
- 3. If the Director approves the application, the Director shall add the best management practice to the list of additional best management practices set forth in Section II of this Appendix, post the modified list of additional best management practices on ADWR's web site and file the modified list within the ADWR's active management area office.*
- 4. The Director may add a best management practice to the list of additional best management practices set forth in Section II of this Appendix.*

APPENDIX 5D
MUNICIPAL WATER PROVIDERS IN THE PINAL AMA

Provider Number	Provider Name	Provider Type
56-001352.0000	ARIZONA DEPT OF CORRECTIONS - EYMAN	LARGE
56-001346.0000	ARIZONA DEPT. OF CORRECTIONS	SMALL
56-001304.0000	ARIZONA DEPT. OF CORRECTIONS - FLORENCE	LARGE
56-001305.0000	ARIZONA TRAINING PROGRAM AT COOLIDGE	SMALL
56-001362.0000	ARIZONA WATER CO - COOLIDGE AIRPORT SYSTEM	SMALL
56-001307.0001	ARIZONA WATER CO - PINAL VALLEY SYSTEM	LARGE
56-001309.0000	ARIZONA WATER CO - STANFIELD SYSTEM	SMALL
56-001310.0000	ARIZONA WATER COMPANY - TIERRA GRANDE	SMALL
56-001319.0000	ARIZONA WATER COMPANY (FORMERLY GOLDEN CORRIDOR)	SMALL
56-001336.0002	AVM-2005, LLC	SMALL
56-001312.0000	CASA GRANDE WEST WATER CO	SMALL
56-001314.0000	CENTRAL ARIZONA COLLEGE	SMALL
56-001356.0001	CITY OF CASA GRANDE	SMALL
56-001203.0000	CITY OF ELOY	LARGE
56-001348.0000	EVERGREEN IRRIGATION DISTRICT	LARGE UNTREATED
56-001349.0000	FRANCISCO GRANDE RESORT	SMALL
56-001361.0000	GLOBAL WATER SCWC - SW	SMALL
56-001316.0002	GLOBAL WATER CO	SMALL
56-001325.0003	INLAND PPD CHARTER COOLIDGE, LLC	SMALL
56-001538.0000	JOHNSON UTILITIES - PINAL	LARGE
57-001107.0000	LA PALMA WATER COMPANY	LARGE UNTREATED
56-001327.0000	MARICOPA DOMESTIC WATER	SMALL
56-001360.0000	NEW SADDLEBACK VISTA DOMESTIC WID	SMALL
56-001329.0000	PAPAGO BUTTE WATER DELIVERY	SMALL
56-001311.0000	PARK WATER CO	SMALL
56-001353.0000	PICACHO WATER COMPANY	LARGE
56-001331.0000	PICACHO WATER IMPROVEMENT	SMALL
56-001332.0000	PINAL COUNTY HOUSING DEPT.	SMALL
56-001357.0000	RANCHES AT MARICOPA	SMALL
56-001355.0000	SANTA CRUZ WATER CO.	LARGE
57-001104.0000	SAN CARLOS IRRIGATION AND DRAINAGE DISTRICT	LARGE UNTREATED
56-001350.0000	SEVEN RANCHES DOMESTIC WATER IMPROVEMENT DISTRICT	SMALL
56-001105.0000	SILVERBELL IRRIGATION AND DRAINAGE DIST	SMALL
56-001347.0000	SOUTH MOUNTAIN WATER COMPANY	SMALL
56-001351.0000	ST. ANTHONY'S GREEK ORTHODOX MONASTERY	SMALL
56-001354.0000	SUNLAND WATER COMPANY	SMALL
56-001342.0000	THUNDERBIRD FARMS IMPROVEMENT DISTRICT	LARGE
56-001204.0001	TOWN OF FLORENCE	LARGE
56-001343.0000	UNITED UTILITIES/ CACTUS FOREST	SMALL
56-001363.0000	VALLE ESCONDIDO DWID	SMALL
56-001345.0000	VILLA GRANDE DWID	SMALL
56-001359.0000	WOODRUFF WATER COMPANY	SMALL

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